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THE RISE OF THE PRACTICE OF INTERNAL MEDICINE AS A SPECIALTY

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BOSTON

IN 1865,[1] the first meeting of the American Medical Association after any war was held in Boston and was a happy occasion. The official point of assembly for the delegates was the chamber of the House of Representatives at the State House (Fig. 1); there were welcoming speeches by His Excellency the Governor and His Honor the Mayor, a program of serious medical papers and a great deal of enjoyable entertainment with accompanying collations, balls and concerts. The final event was an evening trip along Boston Harbor on the steamship *Rose Standish*, concluded by a clambake and a triumphal procession from Commercial Wharf to the Tremont House headed by President N. S. Davis, with the full strength of Mr. Gilmore's Military Band and the American Medical Association following behind. As can be imagined, Boston was eager to display hospitality in many varied forms.

Everything passed off agreeably except for one discordant note. Our colleagues in New York had become aware of an undesirable trend. Advertisements in New York newspapers, sponsored by physicians, had begun to appear with increasing frequency, and these seemed to be no more than palpable efforts to attract business. The New York State Medical Society had determined on a policy to stop this sort of thing, which it hoped other medical societies would also adopt: in effect, that notices indicating a doctor's location and place of residence were to be considered as appropriate for printing in newspapers or elsewhere, whereas those which contained even hidden references to his knowledge of any special branch of practice were to be regarded as a form of self-exploitation and a violation of the Code of Ethics. A physician who was guilty of advertising in this way was therefore unethical and was to be appropriately disciplined.

When the delegates came to order on the third day, Dr. Julius Homberger, of New York City, obtained the floor. He presented an elaborate report, which began with a denouncement of the action of the New York State Medical Society and ended with a resolution asking the American Medical Association to go on record as deploring the publication of advertisements by general practitioners but favoring those printed by men with claims to special skills. He based his plea on the somewhat specious ground that such advertisements afforded the only means by which the public could be informed about how to obtain superior care.

The delegates were men in general practice, of high character, or were well known authorities in their various fields who preferred to be regarded as doctors rather than specialists, and with no additional frills to their names; all were averse to any form of self-sought publicity. It is needless to say that they received Dr. Homberger's remarks frigidly. This they made unmistakably clear: they tabled his resolution; when they got around to it they expelled him from the Association, and they asked the Committee on Ethics for a detailed report on specialism at the next annual meeting.

The Committee on Ethics was a well chosen group; it comprised Dr. Lyndon A. Smith, of New Jersey, Dr. James Kennedy, of New York, Dr. Worthington Hooker, of Connecticut, Dr. Henry I. Bowditch, of Massachusetts, and Dr. A. L. McArthur, of Illinois. Their report proved to be a careful analysis of specialism with its advantages and dangers, and also a tactful bit of literature because it avoided allusion to the somewhat unpleasant circumstances that had made the report necessary. It was divided into two parts: a majority report signed by Drs. Kennedy, Hooker and McArthur, and a minority report written by Dr. Bowditch. Dr. Smith had died shortly after the Boston meeting so that his ideas could not be recorded.

The majority report commented on the fact that the field of medicine was so vast as to make it impossible for any one man to keep abreast of all its phases. Moreover, advances in knowledge were almost certain to be made by those with special interests who applied greater ingenuity in research, wider experience and more skill in the management of such diseases as attracted their attention than the general practitioner could possibly acquire.

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Their expertness promised always to be useful in consultation or teaching and as a means of progress.

Two obvious dangers of specialism were readily apparent: a specialist was likely to become narrow minded, discovering too much in too little, which would be bad for the future of medicine; and he was continually faced with the temptation of charging unduly large fees for his services or of employing improper measures to gain popular favor. On the whole, however, the appearance of specialism in American medicine seemed to be a natural and inevitable by-product of science. It promised to grow in importance as time went on and was in no way fearsome or deplorable.

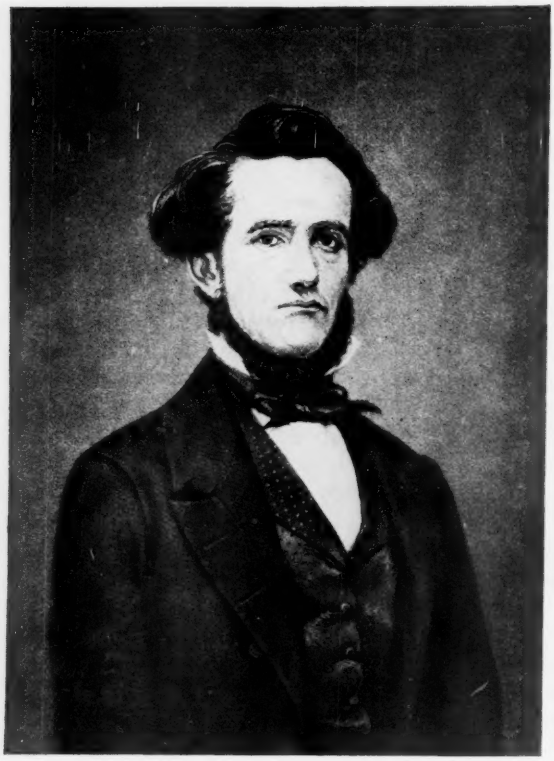

FIGURE 1. *The Boston State House in 1865. Here the delegates to the American Medical Association met, with Dr. Davis as president, and first discussed specialism.*

Dr. Bowditch agreed that the tendency of scientific medicine was in the direction of specialism. It seemed to him, however, that the American Medical Association should not attempt to take action concerning this development, which was beyond its control. He regarded the temptation to advertise as the worst feature of specialism, and this, he believed, could best be held in check by the police power of local opinion. He advised the American Medical Association to make no attempt to map the pathway that special medical practice should pursue but to occupy itself in future by listening to able papers or discussions on topics more closely related to practice.

These reports drew an excellent picture of what was going on and gave a reasonable forecast of the direction in which medicine seemed to be pointing and an accurate description of two of the most obvious faults in specialism. Dr. J. Solis-Cohen, of Pennsylvania, appreciated this; he moved — and his motion was adopted — that the reports be accepted and discussed at a later meeting, and that in the meantime each delegate call them to the attention of his colleagues at home.

In 1869, the delegates at last took formal action. In the meantime, another committee, of which Dr. E. Lloyd Howard, of Maryland, was chairman, had been appointed to give further study to the problem of specialism. This committee now reported that great uncertainty continued to prevail in the minds of many doctors about the proper relation of the specialist to the general practitioner and particularly about the rights of the former to publicize his abilities. There was almost universal agreement that the promotion of specialism was to the advantage of scientific medicine but less so to its practice. Indeed, certain practitioners were convinced that many specialists often implied deliberately, and for no better than selfish reasons, that men in general practice were incompetent to treat certain classes of diseases and thereby had restricted their legitimate field of work.

The committee considered that a very simple policy could do away with any misconceptions. All doctors — specialists or men in general practice — were on an equal footing. Clearly, there was no justice in permitting one man to advertise if this privilege were withheld from another. Moreover, when a physician grew proficient in his labors there was little danger that his merits would fail of recognition. On the other hand, if his success were to be built on so weak a foundation as publicity, a great evil would develop, for he who advertised most plausibly would soon outstrip his competitors so that notoriety, as the public understood the word, would become more important than such

fundamentals to decent practice as integrity of character and professional ability. Therefore, the following resolutions were introduced:

> RESOLVED, That this Association recognizes specialties as proper and legitimate fields of practice.
>
> RESOLVED, That specialists shall be governed by the same rules of professional etiquette, as have been laid down for general practitioners.
>
> RESOLVED, That it shall not be proper for specialists publicly to advertise themselves as such, or to assume any title not specially granted by a regularly chartered college.

The adoption of these resolutions closed the first chapter in the story of the rise of the practice of medicine as a specialty in this country.

The second chapter is more difficult to describe. It covered a period of sixty-two years, from 1869 until 1931, and besides fulfilling the prophecy of the Committee on Ethics that specialism would grow in importance, it showed the confusing effect on medicine of a variety of currents and countercurrents. Apparently, many unrelated influences — rapid expansion of the country's growth, better education, wealth, new inventions, new hospitals, improved means of transportation and communication, knowledge, shifting populations from towns to cities and an economic depression — all played a part in swelling the tide that arose during these years to turn what had been the general practice of medicine into a specialty of many narrow compartments.

The tide was by no means a local one observed in this country but was world wide. The change occurred in Great Britain, France and Germany at about the same time as in the United States, and basically, as the Committee on Ethics said, was a complement of advancing scientific knowledge. As science became more complex, so did medicine, and as specialists in new branches of science proved essential, so they were in new branches of medicine.

The reaction of doctors to what took place followed a natural sequence: first, there developed a concept of what specialism should be; next, plans were evolved by which specialists might best be developed; and finally, mechanisms were established by which physicians who wished to be called specialists could be recognized by a responsible authority delegated to issue proper credentials to the right sort of person. The completion of this program was a slow, evolutionary process.

Not long after the American Medical Association determined that specialties were proper and legitimate fields of practice, the Humboldt Medical College of Saint Louis announced that henceforward it proposed to devote its resources exclusively to the training of students for such fields. This was a pioneer effort on the part of a medical school to use the lure of specialism to attract patronage; other medical schools were quick to follow suit. Even so respectable an institution as Harvard University clambered for a seat on such a wagon. In the summer of 1873, on the front page of the *Boston Medical and Surgical Journal*, there appeared an advertisement specifying that doctors who wished graduate training could obtain it in several specialties at the Harvard Medical School, and rather better than in Europe, at the rate of a hundred and twenty dollars a term; they need take no examinations nor pursue a prescribed curriculum, but they would be given a certificate when they left, stating that they had attended a course of advanced study. This was fairly typical of postgraduate education in those times.

The financial advantages to a specialist of yielding to the temptation of charging unduly large fees and of employing improper means to gain popular favor quickly became apparent. Naturally, self-styled members of the gentry mushroomed up everywhere; the United States being a free country, there was no reason why anyone with a license to practice should not call himself anything he chose, and a magnificent array of framed diplomas calling attention to one's talents was easily obtained to hang on office walls. In those early days, the practice of medicine as a specialty tended to be a racket.

As it gathered momentum in this fashion, the growth of specialism was observed with increasing trepidation by leaders in medicine. Presently they began to complain about it, at first among themselves and later in public. Dr. George Ben Johnston,[2] of Richmond, a distinguished surgeon and president of the Southern Surgical Association in 1897, was one of the first to mention such an unhealthy tendency before an important medical gathering. There had developed, he said, two kinds of specialists: the true specialist who was properly qualified, and the false who had neither knowledge nor any other attainments. The public were not in position to discriminate between them and were being dangerously misled every day by the inferior group. The time had come, he thought, when specialism must be regulated. Medical colleges and medical societies must assume the responsibility of accomplishing this because they were the only bodies with the requisite knowledge; they could make whatever reforms were needed to kill off an existing evil that grew stronger year by year, and he hoped that soon they would begin this formidable task.

Dr. Johnston's point of view was easy to comprehend but not even his prestige was able to overcome prevailing diffidence. Another ten years elapsed before any means for introducing the needed reforms were suggested.

In 1907 Dr. George E. Shambaugh,[3] a rising young otolaryngologist in Chicago, stated that the rapid development of the medical specialties had been one of the conspicuous features of recent medical progress and that a demand for the services of specialists was likely to continue. However, the

need in this country was not for more specialists but for more properly trained ones. Hence a most important question to decide was the type of preparation that they actually required.

Clearly, it seemed to him, a specialist must first of all have been exposed to a broad, general medical course as a background; this should be obtained in the medical school and during the intern year. Beyond this, he must receive intensive training in the basic sciences, modes of research and the literature connected with his specialty, as well as careful and systematic clinical experience in its practice. All this could not be obtained in a few weeks or months of study by any short cut but was a serious and protracted process. The natural places for such advanced education were in medical colleges with adequate clinical and laboratory facilities to offer it. Hence he thought that the institutions should be encouraged to establish genuine graduate courses in various fields of medicine, each lasting for two or possibly three years and planned to lead to an advanced degree. A candidate who filled the requirements of such a degree and had been trained in this fashion was likely to prove an acceptable and useful member in the specialty to which he chose to devote his energies.

This was the first proposal that the true specialist should be more than a good craftsman and that he required, in addition to superior technical skill, not only a critical appreciation of the literature and methods of research in his field but also abilities certified to by some agency less prejudiced than himself.

It took some time for followers of Dr. Shambaugh's views to take action. Seven years later, however, the following editorial comment was made:

> Notice is given elsewhere of a two-year graduate course offered by the University of Minnesota to physicians desiring to specialize in diseases of the eye, ear, nose and throat. Satisfactory completion of this course will secure a suitable degree. . . . Such courses as those provided by high-grade universities will place the term "specialist" on a reliable basis. . . . Why should not similar and equally thorough courses be established to furnish acceptable training in the other specialties of medicine?[4]

This was progress, but the skeptics at once asked three embarrassing questions. How could doctors who needed such a course of training be persuaded to invest the necessary time and money to obtain it? What inducement was there to tempt a man to devote two or three years more to education when already he could practice any kind of a specialty he chose? Was not some authority such as a state examining board required to qualify specialists so that the self-styled ones might be put out of business?

The ophthalmologists[5] hit upon an ingenious answer to these questions: they established their own board of examiners. This board formed itself as a voluntary affair, self-authorized to outline a proper course of training for future ophthalmologists, to examine candidates who prepared themselves to practice the specialty according to the suggested pattern and to issue certificates to men who were fortunate enough to survive such a fiery ordeal. This proved to be a significant action, for the board soon became extremely powerful and thus demonstrated that doctors, when they chose to, were able to regulate their own affairs in so delicate a matter as the certification of specialists and without help from outside.

In 1921 the chief topic of discussion at the Annual Congress on Medical Education and Licensure,[6] under Dr. Bevan's leadership, was the training of specialists, for by now the subject was very prominent in the public mind. A committee representing internal medicine had been appointed, comprising Dr. Nellis B. Foster, of New York, Dr. Marvin L. Graves, of Texas, Dr. John T. Halsey, of Louisiana, Dr. Charles F. Martin, of Montreal, Dr. Thomas McRae, of Pennsylvania, and Drs. Moffitt and Ray L. Wilbur, of California, with Dr. Herrick, of Chicago, as secretary and Dr. George Blumer, of Connecticut, as chairman. This committee was selected to represent all parts of the country, and each member was a well known teacher.

Their report proved to be a far-sighted document. In brief, these men thought that the medical specialist of the future would require at least three years of intensive training after a year's internship before he could be regarded as well grounded. He should receive this training under the supervision of what was termed a recognized institution and should spend about half the period in clinical work and half in research. He should then be examined, so far as possible at the bedside, in a practical fashion, but also by stringent written and oral tests to assure proof that he had grasped the principles underlying his future life work. Such examinations should be given by a national board authorized to conduct them, and this board should also be empowered to issue some sort of certificate to successful candidates. This way of examining and certifying internists seemed preferable to leaving the matter for universities or state licensing boards to manage. Such a board would go far toward making a wholly respectable character of the internist; its creation seemed most properly to lie in the hands of the American Medical Association — specifically, in those of the Council on Medical Education and Hospitals.

At that particular period, self-styled internists were multiplying rapidly and were enjoying a high degree of financial prosperity, whereas young men hoping to follow in line were finding opportunities to obtain adequate clinical training in hospitals where residencies or fellowships were beginning to develop. The idea of change had no popular appeal to any of them.

The golden age of specialism in medicine continued until 1931,[7] when it ended abruptly in

Philadelphia at the eighty-second meeting of the American Medical Association. Here, in the House of Delegates, Dr. Carl F. Moll, of Michigan, speaking for many men in general practice, introduced a far-reaching resolution. There was a growing tendency, he stated, for physicians, not properly qualified, to hold themselves out as specialists. He asked for the appointment of a commission to study the present state of specialism, to give an opinion concerning the various specialties that were necessary to the best interests of the public and scientific medicine, and to consider the expediency of nation-wide legislation by which state boards of medical examiners should be empowered to issue special licenses to physicians who wished to qualify and practice as specialists.

The House of Delegates instructed the Council on Medical Education and Hospitals to investigate the implications of this resolution and to report their conclusions as soon as possible.

A careful study made three factors clear: that specialism in American medicine was out of hand and needed control; that many different groups of physicians wished to be the controlling agency; and that if various states were to go into the business of licensing specialists, an unfortunate multiplicity of standards would result. On the whole, the wisest way of handling so complicated an affair, from every point of view, seemed to be the establishment of voluntary specialty boards to steer future developments, properly organized on a national level as the ophthalmologists were and — so far as the practice of medicine was concerned — along lines suggested by Dr. Blumer's committee. The upshot was that in 1933 the House of Delegates authorized the Council to approve of such special examining boards as conformed to standards of administration that the Council set up, and the Board of Trustees was urged to use the machinery of the American Medical Association, including the publication of its *Directory*, in furthering the work of such examining boards as the Council might accredit. This action closed the second chapter in the story of the rise of the practice of medicine as a specialty in this country.

The American Board of Internal Medicine was formed as a joint responsibility of the Section on the Practice of Medicine of the American Medical Association and the American College of Physicians. In attempting to evaluate it, one must remember that its seeds were planted from a protest by men in general practice against medical advertising, and that it sprang to life seventy years later only because of a second protest by men in general practice against more subtle forms of medical advertising that many self-styled specialists had come to adopt. In other words, its creation seemed necessary to safeguard medical ethics and the progress of scientific medicine rather than to meet professional needs, and for the benefit of no selfish interests but to protect public health and the integrity of the profession as a whole.

The Board's initial popularity has been striking. Figures are not available from which to judge how many internists there should ever be at any one time in the country. At the present rate of production by existing machinery, however, several hundred promise to be certified each year for the next few years (Fig. 2).

A phenomenon fully as peculiar as the popularity of certification has been the seeming desire of many doctors to practice medicine through a series of narrow compartments. Had all demands been met, besides a board for internists there would

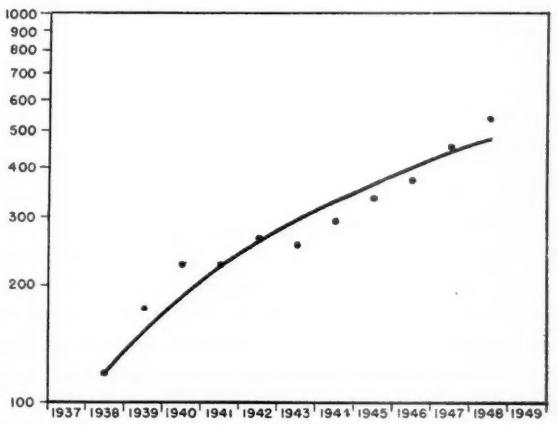

FIGURE 2. *The Prospective Rate of Growth of Certified Internists.*
The graph is constructed from data supplied by the American Board of Internal Medicine.

have been boards for allergists, cardiologists and endocrinologists; boards for specialists in the treatment of diabetes, rheumatism and tuberculosis; and boards for specialists in diseases of the stomach and intestines, the lungs — excluding tuberculosis — and the peripheral vascular system — excluding the heart, which was located too centrally. The question arises, What would be the effect on future practice of such a vogue in specialism carried to so refined a degree?

It is entirely possible that the current desire of doctors to be certified as medical specialists is still an ephemeral result of the war. A number, however, have stated more or less openly that they wished certification chiefly because through its prestige they hoped either to obtain higher salaries, more prominent hospital and teaching positions than would otherwise be open to them or to earn larger incomes in practice. Such reasoning suggests that there are doctors who believe that to be qualified as an internist affords a means of self-exploitation, perhaps more subtle and indirect than the methods used by their predecessors but scarcely less flagrant.

This is the ugly side of the picture. To offset it is the belief, now generally expressed, that board certification has inspired a desire for continuing education in the minds of many doctors who heretofore lacked any stimulus for it and that as a result serious postgraduate education is being undertaken in a variety of ways by a great many physicians, with resultant improvement in the quality of medical care offered the public.

The most apparent disadvantages of overspecialization are twofold: its costliness and its implied discrediting of the work of the nonspecialist.

The costs of medical care are already notably high — to the doctor in terms of time and money spent in acquiring education, and to the patient in terms of what is paid for the variegated professional and hospital services now available. It will be harmful if these costs continue to rise.

It will be equally harmful if no dignified position remains in medicine for the doctor who enters the profession altruistically, hoping to care for sick people, or if the old-time family medical adviser grows to be no more than a provider of medical service who answers night calls, prescribes for persons with no evidence of disease, and whose chief function is to recommend to his patients the specialist to consult for whatever illness they think afflicts them. Such a career would be likely to attract only an inferior type of medical student; eventually there would be a general lowering of professional tone. The physician doing family practice must continue to occupy the same social and financial position that he has always held; he is the cornerstone of adequate medical care.

The specialist of the future assumes a grave responsibility. He must not become narrow, lest he attempt to discover too much in too little. He must avoid the temptation of charging unduly large fees for his services or of employing improper measures to gain popular favor. He must be an explorer and leader, unselfishly raising educational and professional standards, discovering new technics that, when once established, can be used safely and expertly by doctors without highly special training and, through appropriate organization of facilities, helping to develop, at reasonable expense, better diagnostic and therapeutic service for the community than can be offered by any individual working alone.

The third chapter in the story of the rise of the practice of internal medicine as a specialty in this country is concerned with the integration of general and special practice so that the best assets of each can be combined to full advantage for the health of the citizens. This chapter is in the process of being written; its concluding sentences must be phrased by the doctors themselves.

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SUPRADIAPHRAGMATIC THORACIC-DUCT CYST*

An Unusual Mediastinal Tumor

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DURING an operation for a posterior mediastinal mass of unknown nature, a cyst of the thoracic duct was found and removed. In a subsequent search for similar cases, none were found in the English literature. The few foreign cases had occurred in older persons, and all were found in post-mortem examinations. Although cysts of the cisterna chyli are not particularly uncommon, they very rarely arise within the supradiaphragmatic thoracic duct, especially in young persons.

The thoracic duct frequently escapes observation in routine post-mortem examination because of its small caliber and deep position. At present, only 7 cases of thoracic-duct cyst have been reported. In this paper, detailed discussion is limited to cysts that are supradiaphragmatic in position, the present case being the fifth. The 3 lesions of the subdiaphragmatic thoracic duct are those described by Albers (1836), Enzmann and Sandkuhl, all cited by Sindoni.[1] Also excluded from this discussion are cases of cyst-like formation due to metastatic carcinoma, such as one discussed by Enzmann.

Enzmann[2] described a thirty-seven-year-old man who died of pneumonia. At post-mortem examination, the pertinent findings were posterior mediastinitis and a lymphangitis of the thoracic duct. There was a diffuse, slight enlargement of the entire lymph system. Near the upper end of the thoracic duct there was an egg-shaped, smooth cyst, measuring 3.5 by 2.3 cm. The wall was 3.5 mm. thick, and its inner surface was in irregular folds. It contained degenerated thrombi and scattered abscesses. There was a bean-sized clot plugging the entrance to the thoracic duct into the left subclavian vein.

This cyst was assumed to be secondary to the mediastinitis and resultant lymphangitis of the thoracic duct.

Carbone[3] described the post-mortem examination of a fifty-year-old man who had died of pneumonia. There was a cyst of the thoracic duct at the level of the tenth and eleventh dorsal vertebras. The cyst was ovoid, measured 5 by 4 by 3 cm. and contained milky fluid, which coagulated quickly and comprised few red and white blood cells. The inner surface of the cyst was rugiform, with patches of calcification.

The cyst wall on microscopical study showed marked intimal thickening, whereas the adventitia and muscularis showed thinning.

Carbone believed that the pathogenesis was similar to that of aneurysmal dilatation in arteriosclerotic vessels.

Priesel[4] recorded the post-mortem findings in a seventy-six-year-old woman who had died of pyloric carcinoma. A carcinoma of the thyroid gland and two thoracic-duct cysts were seen. The author implied that the nodular left lobe of the thyroid gland might have been a factor in producing the thoracic-duct cysts. The gland measured 11 by 6 by 4.5 cm. and extended down to within 1.5 cm. of the aortic arch, lying substernally between the manubrium and clavicle on one side. It pushed the esophagus and trachea to the right.

The cysts of the thoracic duct were in the upper half of the duct and were irregularly ovoid. The upper one was the larger, measuring 5 by 3.5 cm., and the lower measured 4 by 2.2 cm. The walls were paper thin and were smooth internally except at the lower pole of the upper cyst, where a post-mortem thrombus clung to it. There was no occlusion of the thoracic duct. Microscopical study of the cyst walls showed intimal thickening and scattered areas of calcium.

Kelbling[5] described a seventy-one-year-old woman who had died of bronchopneumonia and cardiac insufficiency. At post-mortem examination, ten aneurysmal cysts of the thoracic duct were found, from the level of the division of the abdominal aorta to the subclavian artery. They were spherical — some were unilocular, and others multilocular. At the lower pole of the largest, which measured 5 by 3 cm., a thrombus clung to the wall. The thoracic duct was obliterated.

From the microscopical study, it was concluded that there were chronic inflammatory changes in the thoracic duct, with loss of elasticity. Compensatory thickening of the intima was noted, with atheromatous changes and calcific deposits that exactly imitated the picture of atherosclerosis. This suggested that the pathogenesis was inflammatory destruction of the lymph vascular wall. Kelbling also pointed out the absence of lymph stasis in spite of the complete closure of the thoracic duct, presumably because of anastomotic channels.

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Case Report

A 20-year-old single college student entered the New Haven Hospital for the second time in November, 1947, for study of a mediastinal tumor that had been found on x-ray study by her family physician.

For 2½ years, but more particularly for 5 months before entry, she had had repeated attacks of substernal soreness, with some exertional dyspnea and a nonproductive cough. There had been malaise, anorexia and fatigability. She had been seen frequently in the medical clinic, and had had one admission in 1945, with an acute upper respiratory infection. A complicating and very dominant factor had been a long-standing anxiety neurosis, for which she had been under psychiatric outpatient care intermittently from the age of 9.

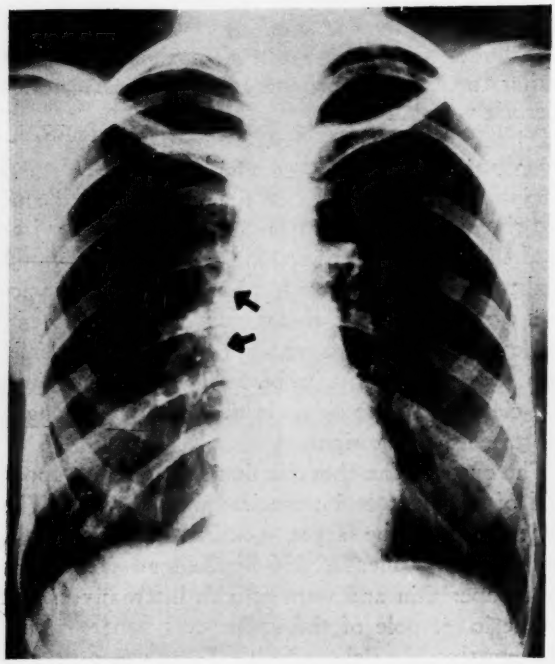

Figure 1. *Posteroanterior Roentgenogram of the Chest Taken in 1945 and Showing, in Retrospect, the Lesion on the Right.*

There was no history of tuberculosis or acute rheumatic fever. There had been no weight loss, night sweats, hemoptysis or gastrointestinal symptoms. Her father had died of cancer at the age of 49.

X-ray examination of the chest had been negative in August, 1943. In retrospect, the roentgenograms taken in 1945 showed a slight increase in the mediastinal shadow (Fig. 1).

Physical examination revealed a thin, anxious-looking, hypasthenic young woman in no acute distress, who appeared chronically ill. There was no evidence of atherosclerosis in the fundi or peripheral vessels. The trachea was deviated to the right. A soft, barely palpable lymph node was felt in each axilla. On the right there was dullness to percussion from the fourth vertebral spine to the base, with flatness along the spine. The breath sounds were diminished in intensity in this area and were bronchovesicular. No rales were heard. No wheeze was audible.

The temperature was 100.4°F., the pulse 110, and the respirations 24. The blood pressure was 120/80.

Examination of the blood showed a red-cell count of 5,000,000, with a hemoglobin of 15 gm. and a hematocrit of 46 per cent, and a white-cell count of 11,000, with 69 per cent neutrophils, 22 per cent lymphocytes, 6 per cent large monocytes and 3 per cent eosinophils. On blood smear, the red blood cells appeared normal, and the thrombocytes adequate. The urine was normal. A stool was guaiac negative. The corrected sedimentation rate was 23 mm. in 1 hour. Enteric agglutinins were negative. A test with second-strength purified-protein derivative was negative, and concentrated gastric lavage culture was negative for acid-fast organisms.

Posteroanterior, lateral and oblique films of the chest (Fig. 2 and 3), laminograms and fluoroscopic examination revealed atelectasis of the apical segment of the right lower lobe. With barium in the esoph gus, there was a distinct indentation corresponding to the location of the mass, but no evidence of mucosal involvement. Both leaves of the diaphragm were smooth, and the costophrenic angles well outlined. A well defined, rounded, soft-tissue mass, measuring about 4 cm. by 7 cm. in its widest dimensions, was seen projecting from the right posterior hilar region into the right hemithorax. No calcifications and no fluid levels were visible within the mass. In the lateral view, it was seen to extend posteriorly to slightly behind the anterior margins of the sixth, seventh and eighth vertebral bodies. There were no visible enlargements of the mediastinal or paratracheal lymph nodes.

Laminography of the chest in two positions revealed the mass mentioned above lying posteriorly to the right of the intermediate bronchus. Atelectasis of the right lower lobe was noted. There was no evidence of any bronchus leading directly to or into the tumor mass.

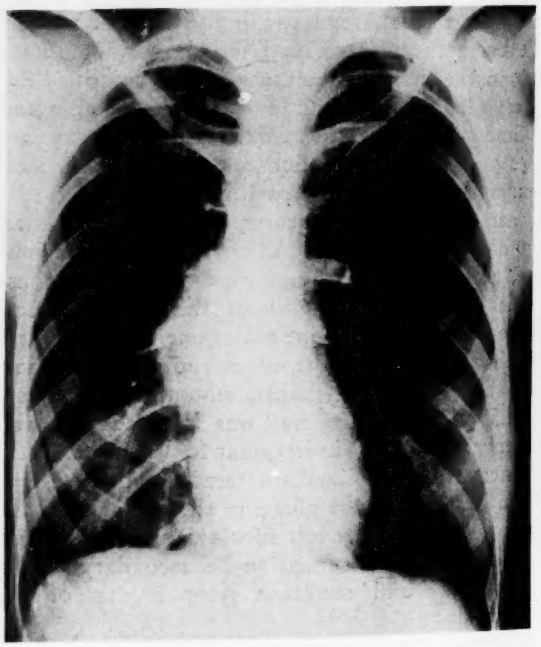

Figure 2. *Posteroanterior Roentgenogram of the Chest, Taken Immediately before Operation.*

Biopsy of the palpable right axillary lymph node showed reticular hyperplasia but no evidence of metastatic tumor. Bronchoscopy demonstrated compression of the lower right main bronchus by a right hilar mass.

The preoperative clinical impression was of a mediastinal mass, posteriorly, on the right, with atelectasis of the right middle and lower lobes. The diagnoses considered most strongly were mediastinal cyst, lymphoma and sarcoid. Also

mentioned were bronchial adenoma, bronchial cyst and a lesion in the esophageal wall.

On December 8 posterior mediastinotomy and thoracotomy were done, with excision of the lesion. The patient was in the left lateral decubitus position, under local and intratracheal anesthesia. A 12-cm. incision was made three finger-breadths from the vertebral spine with its midportion at the level of the eighth rib, which was exposed. An 8-cm. section of this rib was removed by subperiosteal dissection. An extrapleural dissection revealed a firm mass lying next to the vertebral bodies and just beneath the rib. The mass was 4 by 7 cm. and smooth walled, with a slightly yellowish hue. It was firm and seemed to transmit pulsations from beneath. The mass was aspirated with a hypodermic needle, and milky fluid was obtained under pressure. The cystic mass was decreased in tension and collapsed with this procedure. Some of the fluid was taken to the laboratory, where it was found to contain a few red blood cells and took a Sudan III stain. Because the mass could not be adequately exposed through the existing incision, a short portion of the seventh and ninth ribs was resected in a similar fashion. The intercostal bundles were preserved. Dissection with this greater incision finally exposed a small duct-like structure coming from the upper portion of the mass at the level of the seventh vertebral body. Because the remainder of the cyst could not be either visualized or dissected free from its position,

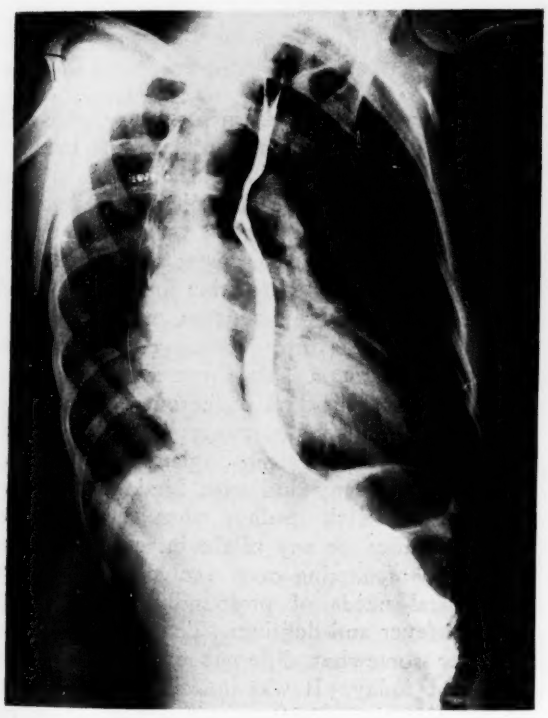

FIGURE 3. *Right Oblique Roentgenogram of the Chest, Showing the Posterior Position of the Mass and Displacement of the Esophagus.*

it was decided to do an open thoracotomy. Consequently, the wound was carried forward from its lower extension, and a flap elevated. The seventh rib was resected almost to the cartilage. The chest was opened, and a free pleural space found. The existing mass was easily identified, lying along the posterior wall next to the vertebral bodies, and in close approximation to the hilus. The pleura was incised over it, and the duct-like structure at the upper end identified. This was cannulated, and a Diodrast injection done. An x-ray film revealed the duct lying along the vertebral bodies, but the actual entrance into the venous system could not be visualized (Fig. 4). This was considered confirmatory evidence for the diagnosis of thoracic-duct cyst. Further dissection at the lower pole of the cyst then demonstrated a duct coming from beneath the diaphragm. During this procedure, the cyst kept refilling with a clear, watery fluid, which clotted quickly on standing. The proximal and distal ducts were doubly ligated with 000 silk sutures, and then the cyst was removed by blunt and sharp dissection. The pleura was closed over the ends of the duct in a double layer, and the

FIGURE 4. *Anteroposterior Oblique Roentgenogram of the Chest, Taken with a Portable Machine on the Operating Table and Showing Diodrast in the Thoracic Duct.*

thoracotomy wound closed in the routine fashion with interrupted silk sutures; 100,000 units of penicillin was left in the pleural cavity.

The pathology report described the gross appearance of the specimen as the wall of a cyst whose dimensions were 5.5 by 4 cm. It was roughly ovoid in shape. From each end there protruded the stump of what appeared to be a tubular structure. The wall of the cyst varied in thickness from less than 1 to 2.5 mm. On its external surface were the rough tags of connective tissue in the planes of dissection. The internal wall had a trabeculated appearance, like that of a hypertrophied bladder. There were elongated branching ridges, all of which appeared to be covered by a glistening, milky-white material, which could easily be scraped off. The microscopical section of the cyst wall showed that the lining membrane consisted of elongated cells resembling the fibroblasts that formed the thick layer adjacent to the lumen. Deep in the wall, however, there were bundles of smooth muscle and small quantities of blood.

After operation, the patient ran a low-grade fever until 3 days before discharge, on the 15th postoperative day.

After discharge, she continued to have a temperature of 99 to 100.5°F. each afternoon and continued to have general malaise and anorexia. By mid-February, 1948, these symptoms had increased and there was general muscle aching. The sedimentation rate was normal. Psychiatric help was advised but refused.

Discussion

It appears likely that few symptoms were actually due to the thoracic-duct cyst and its pressure upon the bronchi or esophagus. The previous intermittent exertional dyspnea may have been due to atelectasis of the right middle and lower lobes. No symptoms referable to lymphatic obstruction developed before or after operation.

It is not within the scope of this report to discuss theories of pathogenesis in this or other cases. Serial roentgenographic studies suggest that this was an acquired cyst. The age group favors an inflammatory or congenital rather than a degenerative etiology.

The diagnosis of thoracic-duct cyst is not likely to be established preoperatively. In view of the rarity of the condition, such a diagnosis is more likely to prove incorrect than correct in the differential diagnosis of mediastinal tumors. It does give further weight to the opinion that, in most cases, mediastinal masses must be explored if a definite diagnosis is to be reached.

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NURSING EDUCATION*

James M. Faulkner, M.D.†

BOSTON

WHEN I was invited to speak on this occasion, I was very happy to accept because, over the years, the Massachusetts Memorial Hospitals School of Nursing and Boston University School of Medicine have grown up side by side, sharing the same clinical facilities at the Massachusetts Memorial Hospitals.

In the sixty-five years that this training school has been in existence, there have been more important advances in medical science than in all the previous centuries of recorded history. Up to that time, objectives in health professions were largely limited to making patients comfortable, relieving pain, keeping up nutrition and otherwise doing what was euphemistically called assisting nature to get the patient well. When the physician sought more heroic remedies, it was usually to resort to harsh and unpleasant measures such as bleeding, blistering, puking, purging, the cautery and the leech. It is not surprising that the art of the physician was looked upon with skepticism by many.

There is an old Latin Proverb: "The doctor is more to be feared than the disease." Joseph Jekyll, in the eighteenth century, wrote:

> The parson shows the way to heaven;
> And then with tender care
> The doctor consummates the work
> And sends the patient there.

The skepticism of the laity was shared, although perhaps not so often expressed, by the medical profession itself. It was Ambroïse Paré, the great French surgeon of the sixteenth century, who said "God heals, and the physician hath the thanks."

And Charles C. Colton wrote, about a hundred years ago, "No men despise physic so much as physicians because no men so thoroughly understand how little it can perform; they have been tinkering the human constitution for four thousand years in order to cure about as many disorders; it is true that each disorder has a thousand prescriptions but not a single remedy."

It was against this dark background of ignorance and helplessness that nursing education began, with Florence Nightingale in England, with the Deaconesses in Germany and with Linda Richards in this country. In those days when there were no specific remedies for any of the infectious diseases, a good deal of nursing care involved looking after the physical needs of profoundly toxic patients with high fever and delirium. That sort of nursing called for somewhat different qualifications than are needed today. It was indeed a calling in the true sense of the word — a calling that demanded a robust faith and a sympathetic understanding of one's fellows, a great deal of common sense, a powerful constitution and a strong stomach.

The tremendous development of scientific medicine in the last fifty years has profoundly altered the position of the nurse in the medical-care program. She has acquired a truly professional status requiring an educational background and a knowledge of the basic sciences that were not envisaged a generation ago. She has assumed the responsibility for carrying out a great many complicated technical procedures that were formerly done by the doctors. She has entered the field of public

*Presented at the graduation exercises of the Massachusetts Memorial Hospitals School of Nursing, Boston, October 6, 1949.

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health and industrial medicine in large numbers. She has served as a commissioned officer in the armed forces. Never has she enjoyed greater prestige than at present.

You happy few who are graduating today are entering a field in which there is a great variety of opportunity for practice, for specialization, for teaching, for missionary work and for administration. The basic training you have had in the Massachusetts Memorial Hospitals will stand you in good stead whatever you do.

Probably every one of you is proud of your school and appreciates that it is one of the finest in the land. What you may not fully appreciate is that there are many more second-rate and third-rate nursing schools than there are first-rate ones. The leaders of the nursing profession are well aware of this fact and are deeply concerned about it. Indeed, nursing education in the United States finds itself in a situation very similar to that of medical education forty years ago. In 1906 there were no less than 162 medical schools in this country. A survey of all of these schools in 1910, by Abraham Flexner under the auspices of the Carnegie Foundation, indicated that a great many of them were merely operated for profit and were educational institutions in name only. The Flexner Report created a profound sensation. The American Medical Association was aroused to set up standards for approval of medical schools, and it published lists of approved and unapproved schools. Most of the unapproved schools could not bear the pitiless light of publicity and one after another closed their doors so that by 1920 there were only 85 schools left in the United States.

In training schools for nurses it has always been a temptation for the hospitals to exploit the student nurses as a form of cheap labor. It is common knowledge that there are hospitals in which the shortage of graduate nurses has been the excuse for overloading the student nurse with routine ward work at the expense of her nursing education.

Are the nurses going to attack this problem the way the doctors did and simply close down the hundreds of inferior hospital schools? In the face of the serious shortage of nurses that would hardly seem feasible. Far better would it be to improve the teaching in the substandard schools rather than to eliminate them. Such a program would take time. Accustomed patterns of teaching that have congealed into a tradition are not changed overnight. Furthermore, the supply of trained-nurse educators throughout the country is pitifully inadequate. In addition, such a program would be very expensive. In many hospitals it would involve shifting some of the routine work load from the students to paid assistants. It would involve increasing the number and raising the standards of the teachers in the training schools. It would involve improved laboratory and teaching facilities. How might such a program be financed? Surely the costs of hospital care have reached the point where the patient cannot be expected to contribute any more. This is perhaps a good point to consider the question, Where should the responsibility for financing nursing education rest — on the student in the form of tuition, on the patient through his hospital fees, on private philanthropy, or on the state?

Because nursing education had its roots in religious orders and later in a sort of apprentice training, the public has never felt the same sort of obligation to support it as it has some other fields of learning such as engineering and medicine. The public needs to be made aware of its responsibility to nursing education as a vital part of a comprehensive health program. The federal Government demonstrated its deep concern in this matter when it financed the Cadet Nurses program during the war in an effort to prevent a serious depletion of students in the training schools throughout the country. Congress is again giving serious consideration to the appropriation of federal funds for nursing education. It will be far more in keeping with American tradition, however, if nursing education is financed locally and voluntarily. Up to now very little effort has been made in this direction.

One approach to this problem is to encourage the affiliation of training schools with established colleges or universities. This already appears to be a growing tendency. From the financial point of view, it provides a certain measure of stability to the training schools since it links them to institutions that the public is accustomed to support either by taxation, as in the state colleges, or by voluntary contributions.

There are other and more important advantages to nursing schools from university affiliation. The colleges bring to the teaching of the basic sciences professional teachers and laboratory facilities not often available to the hospital training school. The university atmosphere perhaps gives the student nurse a broader background and a clearer understanding of the role of her profession in contemporary society. It makes training attractive to many young women who wish to take a college or junior college course but are undecided about a career. Furthermore, it gives them a valuable year or two of just plain maturing before they go into the hospital and begin to deal with patients.

It is not suggested that all those who are engaged in nursing the sick should have a college degree or even a junior-college education but only that there is a great, and as yet unfilled, need for women with such training in the nursing profession. Women of this type are not going to be attracted into nursing unless they are relieved of some of the routine work, which can equally well be carried out by attendant nurses. There is nothing very new or original in this observation.

Indeed, in the last war such a division of responsibility between trained nurses and relatively untrained assistants was given a rather thorough trial in both military and civilian hospitals. In no other way could the nursing potential of the country have been stretched to take care of the enormous load suddenly thrust upon it. The interesting thing is that it worked reasonably well, and it gave a most valuable experience to apply to the problems of nursing in peacetime.

How would the training of a peacetime army of attendant nurses affect the status of the trained nurse? There are some who fear that unhealthy competition between nurses and attendants might result. There are nurses with memories of unemployment during the depression who fear that in another depression a large supply of attendant nurses would make it very difficult for the trained nurse to find work. However, the immense and increasing number of Government hospitals bids fair to create an enormous demand for nursing service that would act as a powerful buffer against unemployment in the foreseeable future.

On the positive side the development of a truly professional sense in the trained nurse will be enhanced by the transfer of some of her purely vocational duties to attendants. Her liberation from some of her present routine duties is a necessary step in her growth toward a position of greater responsibility in the future. If it is granted that this division of responsibility is possible in institutional nursing the question might still be raised whether it can possibly be applied to private nursing in the home. The visiting nurses have already given an eloquent answer to that question. They have shown how a single nurse can supply skilled service for a number of patients in their homes and at the same time give general supervision to the rest of their nursing care.

A serious obstacle to the training of a sizable group of attendant nurses has been the difficulty in recruiting them, particularly in times of full and lucrative employment. It is questionable, however, whether all the possibilities have been exhausted.

If young women are to be attracted into attendant nursing, the profession must consider how the job can be made more interesting and attractive and must be solicitous to safeguard their dignity and self-respect. The attitude of the trained nurse toward the attendant is crucial in this problem. If she looks upon her with an air of superiority mingled with mistrust, she can make life completely miserable for the attendant; on the other hand, if she is willing to accept her as a junior partner on the team with her own clear-cut sphere of duties and responsibilities, she will create the atmosphere of mutual respect that is essential to such a relation. Nursing of the future will, in my opinion, compel an integration of function at different levels that is now taken for granted in any well managed business office.

One way of adding to the attraction of the training course for attendant nurses is to compress it into as short a period as is compatible with sound educational practice. This should be not more than one year and should be followed by one year of supervised practice in a hospital or district nursing program, or preferably both, before licensure. The financing of the education of attendant nurses should rest with the existing educational system of the land, public and private. It should not be a burden on the hospitals.

Boston is particularly fortunate in having the Household Nursing Association, which provides an excellent intensive course in attendant nursing. All who are interested in improving medical care should be on the lookout for promising candidates for such training. This is one calling in which maturity and experience in housekeeping are positive assets, and it offers to such women a dignified and satisfying career.

In summary, it is suggested that the nursing education of the future should include two complementary types of training — one at a professional level, preferably given under university auspices, and one at an attendant level and of brief duration. Both types of training should be financed as educational institutions of the community, public or private, and not as a hospital responsibility.

CLINICAL OBSERVATIONS ON THE RECTAL AND ORAL USE OF VARIOUS ERGOT DERIVATIVES IN HEADACHE

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CLINICAL observations have recently been reported on the use of Cafergone, a new anticephalalgic agent for oral use consisting of 1 mg. of ergotamine tartrate and 100 mg. caffeine alkaloid. Several observers[1-6] reported excellent results with Cafergone orally in vascular headache, and it was the consensus of most that Cafergone is effective in the treatment of migraine, especially when taken early and in adequate dosage, and that it is also of value in combating psychogenic headache. The results were especially encouraging in headache caused by overindulgence, as well as in that associated with fever and photophobia.

In patients in whom migraine is accompanied by nausea and vomiting, however, oral medication is often impractical. To circumvent this difficulty, and for use in certain cases of migraine that do not respond to Cafergone orally, a rectal suppository containing 2 mg. of ergotamine tartrate and 100 mg. of caffeine, known as EC 112, and another containing 4 mg. dihydroergotamine methanesulfonate† were made available. DHC 50, another combination for oral use, containing 2 mg. dihydroergotamine and 100 mg. caffeine alkaloid, likewise was tried in several clinical varieties of headache.

ANALYSIS OF RESULTS

Table 1 records the results obtained with these new products. The effects were classified as excellent if complete relief was obtained within one or two hours, as good if the usual severity and duration of symptoms were greatly reduced, and as poor if little or no benefit was obtained.

EC 112 was administered for severe migraine as close to the onset of headache as possible. It was never necessary to use a second suppository except in cases in which only half the suppository had been inserted as a trial. In such cases another half suppository was administered. Although I was not able to demonstrate conclusively that the interval between headaches was lengthened, this was the definite impression of several patients.

Of 36 patients with migraine, 20 obtained excellent results with the use of EC 112 rectally; the results were classified as good in 12 and as poor in 4. In all cases three trials of the suppository were carried out. Two patients made many more tests, the results being uniformly excellent, and the patients asked for the drug even though it is not as yet on the market. In general, they found it preferable to Cafergone orally for the more severe forms of their headaches. In these persons it has been possible to replace completely intramuscular and intravenous injection of ergot preparations by the use of EC 112 rectally. In this same group of patients with migraine, the results obtained from DHE 45 suppositories were excellent in 17, good in 10 and poor in 9.

Ten patients with tension (psychogenic) headache likewise tested these suppositories. With EC 112 the results were excellent in 5, good in 2 and poor in 3. DHE 45 rectally was not so effective in this group, none of the patients obtaining excellent results; 4 had good results, and in 6 DHE 45 had little or no effect.

The oral medication DHC 50 was employed in 30 patients with migraine and in 30 patients with tension (psychogenic) headache. It was employed at the inception of the headache and, occasionally, as a prophylactic. The dose was 2 tablets at the inception of the headache to be repeated at the end of an hour if relief was not obtained. Prophylactically, DHC 50 was employed in several women who regularly had headache, on arising, associated with the menses. The were given 2 tablets nightly to ward off such headaches during this period. In the patients with migraine the results were excellent in 21, good in 6 and poor in 3; of those with tension (psychogenic) headache 22 patients reported excellent results, 6 good, and 2 poor. In every case

TABLE 1. *Results with Rectal and Oral Use of Ergot Derivatives in the Treatment of Headaches.*

TYPE OF HEADACHE	RESULTS WITH EC 112 (RECTAL SUPPOSITORY)					RESULTS WITH DHE 45 (RECTAL SUPPOSITORY)					RESULTS WITH DHC 50 (ORAL MEDICATION)				
	EXCELLENT	GOOD	POOR	TOTAL NO. OF CASES	TOTAL NO. OF TRIALS	EXCELLENT	GOOD	POOR	TOTAL NO. OF CASES	TOTAL NO. OF TRIALS	EXCELLENT	GOOD	POOR	TOTAL NO. OF CASES	TOTAL NO. OF TRIALS
Migraine	20	12	4	36	108	17	10	9	36	72	21	6	3	30	180
Tension (psychogenic)	5	2	3	10	20	0	4	6	10	20	22	6	2	30	180

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†Kindly supplied by Sandoz Pharmaceuticals Division of Sandoz Chemical Works, Inc., San Francisco.

at least 6 trials of DHC 50 were made. These results are quite comparable to those obtained with EC 110 in every respect.

Only one of these drugs produced an undesirable reaction. EC 112 caused an attack of nausea, emesis and diaphoresis, lasting from thirty to sixty minutes in 5 of 36 patients. These patients later were tested with EC 112 suppositories, which were cut in half. The results were encouraging with the smaller dosage in that the reactions were either greatly minimized or entirely absent. These patients tolerated the DHE 45 suppositories without reaction.

Conclusions

The administration of EC 112 and DHE 45 rectally circumvents the impracticability of oral medication in patients whose headaches are accompanied by nausea and vomiting.

The suppository is preferable to the oral medication in severe cases, even when nausea and vomiting are not encountered.

The rectal suppositories eliminate the necessity for administration of these anticephalalgic drugs by injection in the severe cases.

Undesirable reactions to EC 112 can be eliminated by reduction of the dose.

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MEDICAL PROGRESS

DERMATOLOGIC THERAPY (Concluded)

John Godwin Downing, M.D.*

BOSTON

Johnson et al.[57] the discoverers of bacitracin, found it to be produced by gram-positive, sporulating organism of the *Bacillus subtilis* group. Meleney and Johnson[58] report 88 per cent favorable response in the local treatment of 100 cases of surgical infection. In general, it may be stated that bacitracin is effective in vitro against gram-positive organisms both aerobic (streptococci, pneumococci, staphylococci, micrococci and corynbacteria) and anaerobic (clostridia, streptococci and micrococci), but ineffective against gram-negative organisms (bacilli of the coliform, proteus and pyocyaneus groups) with the exception of the gonococcus and the meningococcus, which are susceptible to its action. Fungi, such as monilia and cryptococci, are resistant. Spirochetes are highly susceptible. Miller and his coworkers[59] treated 130 cases of primary and secondary infection of the skin with an ointment containing 500 units of bacitracin per gram, and found it to be of value in impetigo, ecthyma and similar pyogenic cutaneous eruptions. Eichenlaub and Olivo[60] state that the results in impetigo and ecthyma were excellent, even dramatic on occasion. In a later report Miller et al.[61] tabulate results with bacitracin and those previously reported with ointments containing penicillin, sulfonamides and nitrofurazone, and reveal that bacitracin approximates these agents in effectiveness. According to the authors the superiority of bacitracin rests in the low rate of sensitization of the patient: 0.5 per cent as compared with 6 per cent for penicillin and 5 per cent for sulfonamides and nitrofurazone during the early use of these agents. I have used this ointment in over 200 cases and up to the present have found a 1 per cent sensitivity. Its great advantage over the use of other antibiotics, however, is that it is recommended for local therapy only. Derzavis, Rice and Leland[62] observed only 1 proved case of hypersensitivity among 288 patients, 138 clinical superficial pyodermas and 150 patch-test cases. They conclude that bacitracin is a new and potent agent for the treatment of the accessible pyodermas, and state that of particular notice is its extremely low index of allergenicity as evidenced by results obtained at this time.

During the past spring and summer New England experienced an unusual amount of sunlight, with the result that I saw more cases of sensitivity due to sunlight than in any other period of my practice. An opportunity was thereby afforded to evaluate the use of antihistaminics in this type of patient. Three patients with a previous history of eruption due to exposure to sunlight were able to continue their out-of-door activities while taking one of these drugs.

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Baer et al.[63] disagree with the conclusion of Kurtin and his associates[64] that ultraviolet light produces no erythema on skin previously impregnated with Pyribenzamine by iontophoresis. The former repeated the experiments with Pyribenzamine and Benadryl and concluded that Pyribenzamine inhibits erythema from ultraviolet light chiefly by its filtration of erythema-producing wave lengths and not by antihistaminic action. Benadryl had little inhibition for erythema from ultraviolet light.

After trying various test methods used on human subjects for the comparison of antihistaminic drugs, Perry, Folk and Pillsbury[65] conclude that the histamine iontophoresis is superior to other methods. Five drugs tested on 50 subjects showed antihistaminic activity in ascending order as follows: aminophylline, ephedrine sulfate, diphenhydramine hydrochloride (Benadryl), tripelennamine hydrochloride (Pyribenzamine) and Hydryllin.

To determine whether or not antihistaminics were of value in the prevention of radiation sickness, Court Brown and Hunter[66] studied 47 cases of cancer of the breast receiving postoperative irradiation. These cases were divided into three groups of 15, 15 and 17 cases. One group received Anthison, 0.6 to 1.0 gm. daily; another received inactive placebo appearing identical with Anthison; and the third group received nothing. The results showed that the group receiving the Anthison had the highest incidence of radiation sickness; the group receiving nothing were next, and those receiving the placebo had the lowest incidence — 94, 74 and 67 per cent, respectively. The authors conclude that the antihistaminics may interfere with normal protective reaction of the cells to x-rays, and that they are possibly contraindicated. They are certainly ineffective in preventing radiation sickness.

Various groups continue to study the antihistaminics promoted by various drug houses.[67,68] Most authorities seem to agree that they are most effective in urticaria and angioneurotic edema. Their enthusiasm is waning so far as cases of contact and atopic dermatitides and various other pruritic dermatologic entities are concerned. I believe that most dermatologists continue to use them because every now and then there is apparent relief from itching in a few of the dermatitides. Whether this is entirely psychic is impossible to determine.

Strauss[69] tested Thephorin in bee stings, and reported that the intense pain and stinging sensation was relieved within one or two minutes. The majority of patients had no local swelling — a factor that tends to indicate a true antihistamine action of the drug. No side effects were observed. Thephorin may be equally valuable in hornet, wasp, mosquito or ant bites.

The most frequent cause of dermatitis venenata is contact with poisonous plants. The economic possibilities of a useful medication for the treatment of this disease are unlimited. The number of preparations on the market is tremendous. Hence, it was to be expected that when the new antihistaminic drugs were introduced they would be recommended for the treatment of dermatitis due to plants, especially poison ivy.[70] I have seen hundreds of persons suffering from dermatitides due to an external irritant, including poison ivy, for which I have prescribed various antihistaminic drugs. At first I thought they were of value, but I now believe that they are a waste of money for the large majority of patients suffering from a contact dermatitis.

These drugs are now being recommended in the form of ointments. Some may be of value in certain persistent, itching, localized patches of eczema, but I am rather careful in prescribing them because I have already observed sensitization as a result of their use. This local therapy has stimulated considerable controversy. Feinberg and Bernstein[71] found that tripelennamine hydrochloride ointments had a favorable effect in relieving the itching of disseminated neurodermatitis. I agree with Sulzberger et al.[72] who report that Pyribenzamine cream (2 or 5 per cent) appears to be a good, clean and nonstaining adjunct in the treatment of lichen chronicus simplex. Its value in the other dermatoses treated is questionable. Contrary to the findings of Feinberg and Bernstein,[71] beneficial effects were absent in cases of atopic dermatitis, and were seen in only the small minority of cases of such dermatoses as dermatitis eczematosa (contact type) and pruritus ani and pruritus vulvae. Although the Pyribenzamine cream caused temporary burning and stinging when applied to fissured or broken skin, it did not cause primary skin irritation. However, in 2 of a series of 90 cases, there was evidence of a true allergic eczematous contact type of sensitization to Pyribenzamine. In 3 cases there was evidence of systemic side effects, which were possibly due to absorption. Wooldridge and Joseph[73] used phenindamine (Thephorin) ointment in the treatment of 23 patients with disseminated neurodermatitis (atopic eczema) and 14 patients with circumscribed neurodermatitis (lichen chronicus simplex). They report that the use of this drug represents a significant advantage in the treatment of neurodermatitis, since improvement can be obtained with local therapy alone. They found this form of treatment entirely free from constitutional reactions and encountered only 1 case of induced sensitivity. In their hands phenindamine ointment seemed the best drug for the treatment of disseminated neurodermatitis. In the treatment of circumscribed neurodermatitis, though beneficial in most cases, it was not as effective as in that of the disseminated disease.

Recently, Ellis and Bundick[74] reported on a series of 50 patients treated locally with Thephorin for

chronic pruritic dermatoses. After a long period of use (average of fifty days) clinical reactions developed in 14 cases (28 per cent). Only 5 (10 per cent) could be given patch tests; all had contact allergic eczematous sensitivity proved by positive tests to Thephorin in the vehicle employed, and 3 patients (6 per cent) were proved to be sensitive to the drug itself.

These drugs are also being incorporated in lotions. They are expensive and to date have shown no improvement over the ordinary well known shake lotions in contact dermatitis. Occasionally, they have been of value where the skin has been unbroken, as in senile pruritus.

More interest is being stimulated in the dietary treatment of various skin diseases, especially in older persons. Research workers have shown that the life span for rats is greatly increased by a diet adequate in vitamins, proteins and minerals but low in calories. Although these rats did not retain normal size, they later grew to delayed maturity when given adequate caloric intake.

The disabilities of old age are receiving more attention from dermatologists. Guy et al.[75] discuss geriatric nutritional eczema in persons with varying degrees of edema, particularly below the knees, usually associated with eczematous processes involving the same areas. Occasionally, there was chronic generalized erythroderma. There were no apparent varicosities or history of cardiac or renal disease. Most of the patients had dental caries or poor mastication. Gas after eating, anorexia, constipation, hypochromic anemia, poor diet and achylia were common findings in the group. In all cases the total blood protein was diminished, and the albumin-globulin ratio was altered. Helpful treatment consisted of adequate mastication, a high-protein diet, protein hydrolysates, concentrates and vitamins (yeast and liver), correction of the anemia, dilute hydrochloride acid and local care of the skin. These authors summarize the basic cause of the eczema as inadequate protein intake or reserve, with resultant edema that renders the tissues more susceptible to infection, and irritation.

Keddie[76] shows that if vitamin A is to be used in the treatment of follicular hyperkeratosis, it is necessary to give large dosage. A patient who was receiving estrogens for a marked hyperkeratosis of the follicles of the palms and soles responded to 200,000 units of vitamin A daily, but not to 100,000 units. In this case parenteral administration was more effective than oral, possibly owing to the fact that it escaped portal circulation to the liver. It is further stated that estrogens affect liver function, particularly regarding vitamin B, and possibly vitamin A. It is believed that vitamin B is necessary for the liver to inactivate the estrogens. Vitamin B deficiency permits excessive estrogens to circulate and requires excessive vitamin A to combat it. An explanation of this antagonism between vitamin A and estrogens is not apparent. This sequence of events may occur in keratosis follicularis and pityriasis rubra pilaris, and may account for inconsistent improvement with vitamin A therapy.

Careless prescription of vitamins seems to be fairly common. Rothman and Leon[77] report 2 cases in which the excessive intake of vitamin A (125,000 and 145,000 units daily respectively) in infants (one fourteen months and the other twenty-two months of age) caused anorexia with failure to gain weight, irritability, pruritus, bone sensitivity, sparse hair, cracked lips, hepatomegaly, x-ray evidence of periosteal proliferation and an increased serum level of vitamin A. Prompt recovery followed removal of vitamin A from the diet.

Robertson[78] suggests that care should be exercised in the use of vitamin D_2 in the treatment of sarcoidosis. He states that skin lesions may be improved or aggravated by this therapy. He shows that although the lesions may improve, systemic symptoms occur and may be alarming; in addition, other reports indicate that there may be flareups of tuberculosis elsewhere while lupus vulgaris lesions are being improved by vitamin D_2.

Anning[79] advises against the use of calciferol (vitamin D_2) in the treatment of conditions such as chilblains. On the basis of 103 cases he concludes that the vitamin is ineffective in the prevention or treatment of this condition. One must be careful in prescribing calciferol because of the danger of impairment of kidney function, which is apt to occur if treatment lasts over a period of four months without a rest period. Lightbound[80] emphasizes this fact, with a recommendation that the vitamin be given intramuscularly rather than orally. However, she does not present sufficient cases or conclusions to warrant this method of treatment. It has already been proved that oral administration is of definite value in the treatment of lupus vulgaris.

Tocopherols (vitamin E) have been thought to have a beneficial effect on collagenous diseases. Burgess and Pritchard[81, 82] show that vitamin E complex is of value in the treatment of sclerosis of the legs and demonstrate clinical and histologic improvement. They suggest the possibility that tocopherols inhibit enzymes, such as hyaluronidase. Dosage varying from 100 to 300 mg. of tocopherol was used in moderate cases, and 600 mg. of mixed tocopherols was given in more marked cases. They also used this therapy in the treatment of lupus erythematosus,[83] with some favorable curative effects. Superficial lesions clear up quickly, whereas deep, infiltrative lesions require more intensive and prolonged treatment. The results, although not so spectacular as in the superficial type of the disease, are progressive. In a series of 25 cases, 1 patient with long-standing disease and decided infiltration showed early improvement and then

failed to respond to tocopherol therapy. Although this report deals largely with the effect of the administration of tocopherols for lupus erythematosus, it is not considered that other aspects of investigation, such as the factor of infection, should be ignored. I have been using dl-alpha-tocopheryl acetate (ethanol acetate) in chronic discoid lupus erythematosus with varying success.

Lumbar sympathectomies have been tried in cutaneous entities of the extremities ranging from dyshidrosis to ulcerations, with varying results. Naide[84] evaluated the treatment of dermatologic lesions by paravertebral block of a sympathetic ganglion and found complete healing or improvement in 18 of 30 cases treated. Twenty-five of these patients had chronic skin lesions on previously phlebitic extremities. Mufson[85] believed that sympathectomy is the only procedure offering any hope of success for relief of obliterative peripheral-artery disease, but its long-range effect is questionable. He introduced a new treatment consisting of the injection of 0.5 to 1.0 mg. of histamine in 500 cc. of saline solution into the femoral artery for dilatation of its tributaries. The injections were given weekly and caused sufficient improvement of the circulation so that 85 per cent of the patients obtained benefit in walking and sleep tolerance.

During recent years dermatologists have become more and more interested in investigating the role of the sympathetic system in cutaneous lesions, especially of the lower extremities, particularly in various types of stasis ulcers and dermatitides. This suggested the use of a sympatholytic drug, namely, Priscoline. Owing to the many reports[86] of its value in patients with arteriosclerotic peripheral vascular disease, Buerger's disease, thrombophlebitis, trench foot and causalgia, I decided to try it in a series of patients with varicose ulcers. The results seem to merit further consideration of the use of this drug in such entities.

Intravenous injections of various vasodilators, such as theophylline salts, procaine hydrochloride and papaverine hydrochloride, may give immediate relief from itching. Epstein[87] found aminophylline more effective than any other theophylline used. It gave immediate relief in 80 per cent of 30 cases, with relief lasting for an average of eleven hours. He injected 0.5 gm. in 20 cc. of diluent or 0.5 gm. in 1000 cc. of saline solution; the former gave quicker and better results. These agents are more valuable in acute than in chronic pruritic dermatoses.

The Ellers[88] studied the cutaneous effects of the topical application of ointments containing a natural estrus-producing substance derived from the urine of pregnant mares. The study was conducted on 30 women between the ages of twenty and seventy-nine, and 6 men over fifty-five. The topical application of this natural estrogenic substance had a direct effect on the epidermis of postmenopausal women. No changes in the skin were observed in young women with normal endocrine function or in the men. They may explain why several young women treated for acne at my clinic failed to improve, and why Drant[89] found that estrogenic creams had a definite role in the treatment of certain chronic skin diseases in older women.

Cernea[90] suggests a new treatment of neurodermatoses. A new therapeutic method of the systemic nervous irritation of pruritus is represented by paradoxic opotherapy — namely, administration of male glandular extracts in females, and vice versa. This is particularly applicable to pruritus with lichenification. Paradoxic opotherapy has a sedative effect. The patient with pruritus must sleep well so that he does not perceive abnormal cutaneous sensations and does not scratch at night; then treatment of the pruritus or neurodermatitis will be effective. Cernea has obtained excellent results with this paradoxic opotherapy.

Enthusiasm regarding the use of estrogens should be somewhat tempered by the reading of a recent editorial[91] on the controversy about their use and the production of cancer. This concludes that although evidence already available may not be conclusive, it is sufficient to warrant conscientious caution in the use of estrogens, especially over a long period in systemically effective doses.

In a study of the use of steroid hormones in dermatomyositis, lupus erythematosus and polymorphic light-sensitive eruptions by Lamb et al.[92] one gains the impression that hormones have a vague relation to these dermatologic entities. The authors assert that clinical improvement of dermatomyositis followed the injection of testosterone propionate. Two girls with hydroa vacciniform were cured by estrone (Theelin). Other authors have postulated a similar relation, as shown by the treatment of cases of acute disseminated type of lupus erythematosus by sterilization with x-ray therapy and the use of testosterone.

Beerman and Stokes[93] reviewed the therapy of scleroderma in an excellent article and summarized the pros and cons of various forms of therapy. They made an interesting conclusion, stating that on the whole in view of the indifferent results from surgery at the hands of conservative authorities, surgical methods should be the last resort in scleroderma of all types.

Flood and Stokes[94] treated 7 cases of localized scleroderma with bismuth hydroxide and iodobismitol, with excellent results in 2 cases, good results in 4 and a fair result in 1.

Bismitrate has been recommended in a number of dermatologic entities. It became popular because of its oral use. I have seen very few worthwhile results from this method of therapy. Apparently it is not without untoward reactions, as noted by Noun and Greenhill,[95] who described 2 cases. In the first case there was severe headache, soreness

of the facial skin, puffy lids, tinnitus and swollen and bleeding gums with the appearance of a blue line. In the second case it was necessary to stop the treatment because of vesicles appearing on the oral mucous membranes, and abdominal soreness. Stryker et al.[96] report on the treatment of 2 cases of scleroderma with bistrimate, with considerable improvement after two months' treatment and no remission after one year's observation. One case of acrosclerosis improved slightly after nine months' treatment.

Snow and his co-workers[97] state that penicillin is of no value in American cutaneous leishmaniasis. The treatment of 12 cases with antimony potassium tartrate, stibophen or stibomine glucoside produced healing in an average of six weeks, with no recurrences.

Cutaneous infestations of the superficial layers of the skin in patients with *Ancylostoma braziliense* have been treated by Van de Erve[98] with Herazan, with a report of cure of 14 of 17 patients treated for seven to ten days without any serious reactions. Herazan, a piperazine, was given orally in doses of 0.5 to 2.0 mg. per kilogram of body weight three times daily.

Aleksandrowicz[99] makes an interesting observation of the rapidity with which large decubitus ulcers healed in a patient treated with mustard gas for neoplasm of the spine. He also reports the rapid recovery from a large x-ray ulcer after nitrogen therapy.

History of exposure to mercury has been found in several cases of acrodynia. With this in mind Bivings and Lewis[100] used BAL in the treatment of a baby who had been given twelve doses of calomel and rhubarb a few weeks previously. As a result of this treatment there was marked improvement of the patient's condition, with clearing of the skin.

Because of the seriousness of herpes zoster ophthalmicus, every useful method of therapy should be evaluated. Becker[101] treated 5 cases with blood transfusions from convalescent donors, 300 to 450 cc., and 1 case by injection of 20 cc. in each hip. In 3 cases the transfusion was repeated once. Results were apparent in one or two days in all cases, and final vision was normal. Becker states that the optimum time for collecting the blood or serum is about three weeks to two years after the illness. It should be given before eye involvement.

The literature on the treatment of acne is a bit confusing. Osborne[102] is very emphatic about a low-fat and low-carbohydrate diet and stresses the value of Antuitrin S two or three times a week, with the addition of desiccated thyroid. He insists that no iodides, bromides, vaccines or toxoids be added to the therapy. He further states that exfoliation from ultraviolet radiation is of benefit, and x-ray therapy is a valuable adjunct. Most dermatologists will agree with his therapy, and disagree with Gaul and Underwood[103] in their statement that iodized salt does not unfavorably affect the course of acne vulgaris. Most dermatologists have seen cases in which a definite exacerbation of the acne eruption followed the ingestion of iodized salt. During the season of 1947-1948 Gaul and Underwood observed 500 male students. A certain number improved when their diet was supplemented by small amounts of a strong iodine solution.

I have frequently seen patients with extensive neurodermatitis who have been improved by psychosomatic therapy, and was interested in the paper by Walsh et al.[104] on conscientious psychotherapy combined with dermatologic therapy. This procedure was shown to be beneficial in many cases of generalized neurodermatitis, particularly if the onset appeared in adult life.

Sodium para-aminobenzoate acid, a metabolic antagonist to sulfonamides that caused sensitivity to light, has been chosen for therapy in lupus erythematosus, because of the idea that sunlight is often deleterious to this disease. With this therapy Zarafonetis and his associates[105] treated 18 cases and stated that objective and subjective improvement occurred in most of them, but that relapses usually occurred after treatment was discontinued. They conclude that the therapy will not cure lupus erythematosus, but that it merits further study.

Yearly new treatments for psoriasis are advanced, some more preposterous than others; for example, insulin shock,[106] calciferol,[107] Dicumarol[108] and a potassium-free diet given with adrenal extracts and vitamin C,[109] urethane[110] and the fatty acids. Perlman[111] gave undecylenic acid orally in a case of tinea capitis without cure, but the profuse desquamation of the scalp suggested its use in psoriasis, and he reports on its oral use in psoriasis and neurodermatitis. Perlman and Milberg[112] subsequently discussed the treatment of 40 cases of psoriasis with undecylenic acid given perorally. The standard dose eventually adopted, which was the highest daily dose, was 19.8 gm. of the acid, in the form of 45 pearls of 0.44 cc. each — that is, three times 15 pearls per day. The ingestion was found free from serious or lasting toxic effects. Mild gastrointestinal disturbances occurred, but only in 1 case did these interfere with the continuation of the treatment schedule. Of 40 psoriatic patients with cutaneous lesions, 12 showed unequivocal improvement during treatment, 14 were somewhat improved, 10 evidenced no change, and 3 had distinct aggravation of the disease. Seven of 8 patients with psoriatic arthropathy noted relief from pain. Perlman and Milberg conclude that no rationale underlying the new therapeutic approach can be offered at this early stage of investigation.

In a recent letter Behrman[113] states that he has had rather unfortunate sequelae to this new form of therapy in 2 patients, and cites a patient with a healed gastric ulcer who complained of diarrhea and severe abdominal pain after three weeks of

treatment with much smaller doses than those recommended. The medication was discontinued, but one week later a severe intestinal hemorrhage developed, necessitating emergency hospitalization. Another patient with localized patches of psoriasis of many years' duration was admitted to the hospital with a generalized exfoliating dermatitis following undecylenic acid therapy.

I have treated and observed 29 patients undergoing this type of treatment and have noticed improvement in only 1 case, which later recurred, whereas several patients were definitely made worse. I have had better results with psychotherapy. This small amount of improvement is really extraordinary, because psoriatic patients frequently respond to almost any new form of therapy. One patient complained of aural pressure and deafness; this ceased when the medication, which he had taken for ten weeks, was discontinued. It is very expensive because 40 pills daily must be continued in some cases up to six months.

Any medication that will relieve pruritus will be welcomed by dermatologists. Rottino[114] reports relief of pruritus with the administration of adenylic acid. In December, 1948, it was given to a group of patients with Hodgkin's disease, in the hope that it might have an influence on their physical energy, depletion of which is one of the disabling effects of this disease. Two patients suffering from pruritus reported that this had completely disappeared. Subsequently, 36 patients with pruritus of diverse etiology were treated with adenylic acid. In 30 cases there was a subsidence of the pruritus ranging from complete to mild. In a later report on the effect of adenosine-5-monophosphate on pruritus, Rottino[115] concludes the studies, reporting several additional cases, and states that in some cases not only did the pruritus disappear but also the skin became softer and less dry. If this work can be confirmed it will be a great boon to patients suffering from cutaneous diseases.

Amersbach et al.[116] are continuing their study on the treatment of basal-cell carcinomas by the injection of tissue extracts. The results shown in Table 1 were obtained.

Of the 46 cases, 2 were failures, and excision was performed in 4 because of slow regression. Five patients showed 50 to 90 per cent regression when last seen; 5 were still under treatment with definite regression, and 30 showed complete regression. One spinobasal and one prickle-cell carcinoma were completely cured by this therapy.

Mohs[117] continues his observations on the chemosurgical treatment of cancer of the skin. He uses a zinc chloride fixation that selectively outlines cancerous tissue. By sectional removal and biopsy it can be determined when the limits of the cancer have been excised. In a series of 458 cases of basal-cell carcinoma, 97.4 per cent have been successfully treated after three years' observation, and 96.2 per cent of 291 cases have been observed for five years. The cure rate for 222 cases of squamous-cell carcinoma observed for five years was 85.6 per cent. This method of therapy is reliable and conservative (in unnecessary destruction of healthy tissue), and gives an unusually high proportion of successful results. Only 1 death attributable to the chemosurgical procedure resulted in a series of 814 cases. It is a specialized mode of therapy requiring considerable preparation but is justified by results, which indicate that the percentage cured after three years' observation is practically identical with that after five years.

TABLE 1. *Effects of Tissue-Extract Injection on Basal-Cell Carcinomas.*

EXTRACT	NO. OF CASES	NO. OF CURES	NO. OF SLOW REGRESSIONS	NO. OF FAILURES
Human spleen	17	11	4	2
Human liver	10	7	3	
Beef spleen	12	8	4	
Human liver and beef	1	1		
Lamb liver	6	3	3	
Totals	46	30	14	2

Donlan[118] reports on the value of irradiation in 83 cases of biopsied carcinoma of the tongue treated by radium, radium in addition to x-rays or x-rays alone. The five-year survival rate based on 55 cases was 31 per cent. About 20 per cent of the 83 cases were operable. She states that among the advantages of radiation are the facts that there is no speech defect, the mortality from treatment is nil, and the five-year survival rate may be higher than with surgery.

The technic and problems of x-ray epilation in the treatment of tinea capitis are outlined by Combes and Behrman,[119] who find that a dosage of 350 r has proved adequate. At best, this procedure is a very tricky performance that no one should undertake without special training in this type of therapy.

The use of Thorium X by Pinkus[120] has revived interest in the alpha-ray treatment of dermatoses. He finds it of value in many superficial cutaneous disturbances. A few of the older Boston dermatologists remember a physician who was enthusiastic about this substance and used it for years in the treatment of cutaneous disturbances until his death from leukemia.

No one can be too careful in the use of various machines emanating stray radiation. Andrews[121] mentions these factors in an excellent paper on contact roentgenotherapy. The disadvantages are stray radiation requiring the use of gloves and an apron, an awkward tube stand and no protective screen. The advantage of such a machine lies in the enormous output because of the short target-skin distance, the time-saving element and the fact

that most of the output is absorbed in the upper centimeter of tissue.

520 Commonwealth Avenue

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CASE RECORDS OF THE MASSACHUSETTS GENERAL HOSPITAL

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CASE 36151

PRESENTATION OF CASE

A fifty-four-year-old woman entered the hospital complaining of chronic cough and recurrent attacks of pneumonia.

Eleven years prior to admission, she had a radical mastectomy for carcinoma at another hospital, followed by 16 x-ray treatments. About one year later she developed her first attack of pneumonia. Thereafter, she had four additional episodes of pneumonia, the last several months before entry. Between these attacks, she had a persistent chronic cough productive of as much as a cupful of blood-flecked, whitish sputum daily. In addition, there had been pronounced exertional dyspnea with weakness and lassitude. There were occasional long periods during which she had observed a daily rise in temperature. During the ten years prior to admission, she had noted the gradual development of a dorsal kyphosis and scoliosis. She had lost 35 to 40 pounds in this period. Digitalis had been administered during the last episode of pneumonia because of a rapid pulse rate. There had been no orthopnea, ankle edema or other evidence of cardiac failure.

Physical examination revealed a well developed and well nourished woman in no acute distress. There was a moderate dorsal kyphosis and scoliosis, with convexity to the right. The left thoracic cage was "shingled," with anteroposterior compression. The scar of the right radical mastectomy was present. Over the right side of the back and anterior thorax were numerous capillary telangiectases. The trachea was shifted to the right. The right-lung field was dull to percussion, with increased fremitus and areas of both increased and decreased breath sounds. The left-lung field was resonant throughout, with scattered musical rales. The cardiac rhythm was regular, and the sounds were of good quality without murmurs. The abdomen was normal.

The temperature was 98.6°F., the pulse 100, and the respirations 20. The blood pressure was 170 systolic, 90 diastolic.

The hemoglobin was 11.6 gm. per 100 cc., and the white-cell count was 13,100. Urinalysis was negative. The vital capacity was 0.8 liter. X-ray examination of the chest revealed an almost complete collapse of the right lung, with slight aeration in its middle third and several cystic areas with the appearance of dilated bronchi (Fig. 1). The

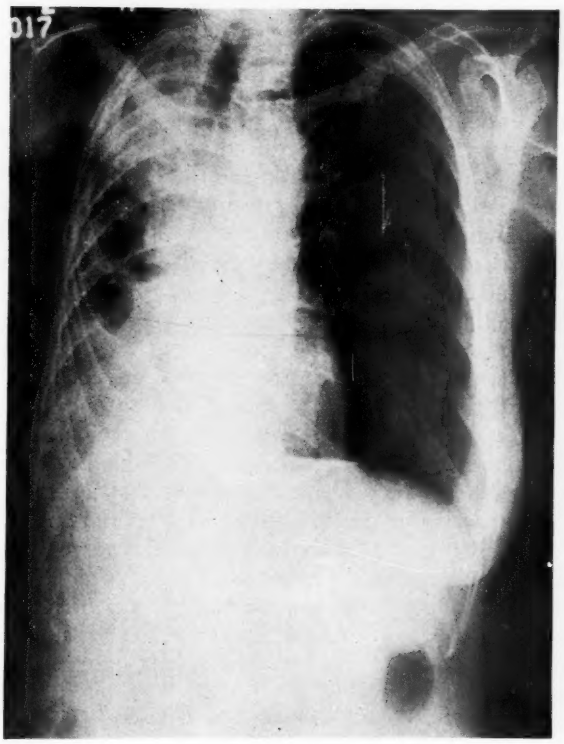

FIGURE 1.

mediastinal structures were shifted markedly to the right. In the left upper lobe was an irregular area of increased density extending into the hilus. The remainder of the left lung was clear. The left leaf of the diaphragm moved freely, whereas the right was not visible.

The patient was placed on postural drainage and given penicillin aerosol. On the tenth hospital day, an operation was performed.

DIFFERENTIAL DIAGNOSIS

DR. JOSEPH C. AUB*: People with kyphosis are likely to have rapid pulse, so that was not reason enough for administering digitalis.

*Physician, Massachusetts General Hospital.

The statement about convexity to the right is probably an error. I do not believe that the convexity of the thoracic cage would be to the side on which she had been given radiation.

DR. RICHARD H. SWEET: It was not — the concavity was to the right.

DR. AUB: It seems that the differential diagnosis lies between pneumonitis due to a great deal of x-ray therapy — but that does not satisfy me as a complete diagnosis — and possibly a recurrence of carcinoma. The x-ray reaction in the lung may have led to repeated pneumonias because radiated tissue is susceptible to infection. She obviously had a chronic infection, probably with bronchiectasis, to account for the large quantity of sputum and blood. Because of the irritation due to that chronically infected lung and the irritation of the x-ray reaction there was continuous vagus stimulation that caused dyspnea. The vital capacity was also greatly reduced so that both these things may have accounted for the dyspnea. The long periods with rising temperature could well be accounted for by infection in the lung. The thing that puzzles me is that by the physical findings and later by the x-ray description, she had a lung collapse. I have never seen collapse of the lung from x-ray therapy alone. Usually, there is considerable fibrosis both of the alveoli and around the bronchi. I suppose the autopsy will show a change in the arteries of the lung of the thrombosing type described by Dr. Shields Warren.* I have never seen a bronchus obstructed by x-ray reaction in the lung. Is that a fair statement?

DR. STANLEY M. WYMAN: I would agree that the bronchus would not be obstructed after x-ray treatment, but she evidently had attacks of pneumonia, if we are to believe the record, and this may have resulted in secondary changes in fairly large bronchi.

DR. AUB: That is quite right. A great deal of bronchitis might close off the bronchi, but from radiation alone I would not think she could get this picture in spite of the fact that the x-ray therapy might cause a good deal of constriction of the lung with shrinking of that side.

May I see the x-ray films?

DR. WYMAN: There is a slight scoliosis with concavity toward the right, as Dr. Aub predicted. The right chest and thoracic cage are decreased in size, and the right lung is seen to be very markedly collapsed with these cystic round areas of translucency most marked in the middle third. The right main bronchus can be traced to a point approximately where it should bifurcate, and the lower-branch bronchi are narrowed. The heart and mediastinum are shifted toward the right, and the trachea is markedly deviated. The left lung shows compensatory emphysema, and although one cannot see it well there are streaks of linear density in the extreme left apex. One point not mentioned but worth recording is that the bones throughout the right thorax show a rather moth-eaten, irregular appearance.

DR. AUB: The diagnosis lies between a reaction to heavy x-ray treatment alone and a neoplasm in the large bronchus. I am not impressed by that involvement of the left lobe; are you, Dr. Wyman?

DR. WYMAN: I think it is definite; we have another film that shows it better.

DR. AUB: I am not convinced that so great a reaction as that was due to x-ray therapy alone. Here is a woman, eleven years after she was operated on, who must have had fairly advanced cancer or she would not have been given this x-ray treatment afterward. In any event she had a carcinoma, and eleven years is not too long for carcinoma of the breast to recur. However, I do not see any sense in making any other diagnosis but an x-ray reaction followed by repeated infections of the bronchi, with pneumonitis and chronic bronchiectasis. I do not believe that the x-ray reaction accounts for all the collapse, the bronchiectasis and the infection; I think there was probably also a neoplasm obstructing this large main bronchus to the right lung. Again, it is a choice of primary bronchiogenic neoplasm or metastasis from the old carcinoma of the breast. I think I would choose a metastasis from carcinoma of the breast.

If I were asked what the operation was, if Dr. Sweet were not here, I would have said a bronchoscopy, because that would have been the thing I would have done, but inasmuch as Dr. Sweet is here, I suppose the right lung was removed because of chronic infection, presumably after bronchoscopy had been done. Without knowing all these things, all I can do is make the diagnosis as I have done.

DR. EDWARD B. BENEDICT: I do not think I saw this patient for bronchoscopy or any other reason. It seems to me that the facts that she developed pneumonia one year after the mastectomy and had repeated attacks of pneumonia suggest that she had a bronchial adenoma.

DR. AUB: The first pneumonia should have been x-ray reaction, although x-ray reaction could predispose toward pneumonia just as a neoplasm would.

DR. BENEDICT: Cancer of the breast can metastasize to the bronchus, but it usually does not.

DR. AUB: It may obstruct it.

DR. BENEDICT: Secondarily.

DR. WYMAN: I can see the right main bronchus fairly well, and although we do know that we do not always see an adenoma in the bronchus, it would have to occur before the branch to the upper

*Warren, S. Histopathology of radiation lesions. *Physiol. Rev.* **24**: 225-238, 1944.

lobe was given off. I would be surprised if this woman had a mass in the bronchus, at least from the x-ray examinations.

Dr. Donald S. King: I was the physician who sent her in. I did not believe that there was sufficient evidence of bronchial obstruction to necessitate bronchoscopy. The x-ray picture was not characteristic of any particular condition, but Dr. Sweet and I thought that it looked more like radiation fibrosis than anything else. I do not yet know the pathologist's report. The doctor who sent the patient to me had been trying for a long time to relieve her symptoms and finally asked in desperation whether surgery offered any hope. When I first saw her she seemed too sick to stand any operation, and Dr. Sweet agreed. But several weeks later she returned and seemed so much better that the surgeons then had the courage to go ahead with the pneumonectomy. A few years ago an operation like this would certainly not have been considered, but with present surgical technics the risk seemed a reasonable one to take.

Dr. Sweet: As Dr. King intimated, my principal task was that of a mechanic employed to do a pneumonectomy. I think it is fair to say that I have never done one as difficult as this. While I was doing it I wished I were more of a carpenter than I am or had some of Dr. Smith-Petersen's orthopedic instruments. There was no recognizable pleura. There was a membrane from 1 to 2 cm. in thickness. The subcutaneous tissue was difficult to get through. The ribs were close together. The other interesting thing that made it seem different from either fibrosis or chronic bronchiectasis was that the chronic inflammatory tissue surrounded the hilus almost as densely as the periphery of the lung, which is unusual in ordinary bronchiectasis. In fact, when we got to the bronchus, it was almost as difficult to dissect the structure as in the periphery. But we weathered it out, and she got along very well and had an uneventful convalescence. The only consideration was getting her through the operation because the lung was absolutely worthless to her. I believed she would get along well because we had eliminated the nidus of infection.

Dr. King: The postoperative recovery was remarkably smooth. She was short of breath but could not find much else to complain of.

Clinical Diagnosis

Radiation fibrosis.

Dr. Aub's Diagnoses

Collapse of right lung.
Extensive x-ray fibrosis of lung.
Metastatic neoplasm, obstructing bronchus.
Chronic infection of lung.

Anatomical Diagnoses

Massive infarction of right lung.
Radiation fibrosis of lung.
Bronchiectatic abscess, right lower lobe.
Thrombosis of right pulmonary artery.

Pathological Discussion

Dr. Tracy B. Mallory: This is the entire lung (Fig. 2) that Dr. Sweet resected. We will pass it around.

It is reduced to about the size of a man's fist and is densely fibrotic throughout. There is no obstruction in the major bronchi. The pulmonary artery, in contrast, is completely filled with blood clot, which is laminated and shows some organization at the periphery. In the center of the lower lobe is an abscess cavity communicating with the bronchial tree. The microscopical picture of this lung except for the localized abscess is that of total infarction. With ordinary stains it appears completely fibrotic. With an elastic-tissue stain, it is evident that there is little increase in collagen except in the pleura and interlobar septum, which are greatly thickened. The massive fibrosis in the rest of the pulmonary parenchyma is entirely due to proliferation or condensation of elastic tissue. This

Figure 2.

type of reaction, so far as I know, is not produced by infectious agents but is very characteristic of infarction of the lung. I have seen nothing resembling it, heretofore, in cases of radiation pneumonitis. Conceivably, she could have had embolic occlusion of the right pulmonary artery, but it would seem rather extraordinary that there should have been nothing in the history dramatic enough to have been recorded, if that were the case. A second alternative is to believe that this represented local thrombosis of the pulmonary arteries, probably beginning toward the periphery and extending retrogradely to the hilus, where the major artery eventually occluded. Whether such an event can occur as a pure result of x-ray therapy, I do not know, and this case is inconclusive because of the simultaneous presence of an infectious lesion.

DR. AUB: My error was due to the fact that I did not recognize in the x-ray film that the bronchus was open. It is perfectly obvious in the pathological specimen.

DR. SWEET: This thrombus in the artery was obvious at the operating table because, as we cut the main pulmonary artery, this adherent plug was discovered. There was some blood in the vessel, which was not completely occluded. I wondered at the time how long this thrombus had been there. It did not seem more than a few weeks old.

DR. MALLORY: In the periphery of the lung there were many vessels that were completely obliterated by old organized thrombi. This clot, I would agree, was apparently more recent than those in the periphery, and I think it represented retrograde thrombosis, rather than pulmonary embolism. It was fairly adherent on one side, not on the other. It is possible that a little blood could have passed it.

ADDENDUM

DR. KING: I have recently received a letter from this patient's physician, Dr. H. L. Park. He reports that nearly two years postoperatively she is living and in better general condition than before the operation. She is dyspneic only on exertion, has been able to work at the factory and has on occasion walked as far as a quarter of a mile without serious difficulty.

CASE 36152

PRESENTATION OF CASE

A fifty-five-year-old hoist engineer was brought to the hospital by police ambulance because of severe pain in the lower back and sharp precordial pain accentuated by deep breathing.

One hour before entry the patient slipped on some grease while at work and fell twenty-five feet into a pit. He landed on the flat of his back on a plank projecting from the floor. He apparently did not strike his head; however, he was "stunned" by the fall. He could move his legs freely.

The past history was noncontributory.

Physical examination revealed a large, well developed man in acute distress. There were obvious signs of shock, and the blood pressure was 70 systolic, 50 diastolic. The left upper quadrant of the abdomen was tympanitic, with very slight tenderness but no spasm. The rest of the abdomen was soft and peristalsis was normal. No masses or organs were palpable. Posteriorly, there was an area of contusion and tenderness over the region of the eighth dorsal vertebra and an area of contusion, tenderness and depression over the fourth and fifth lumbar vertebras. There was bilateral costovertebral-angle tenderness, more marked on the right.

As emergency treatment the patient was placed on a Bradford frame, catheterized and given morphine sulfate. Following a transfusion with 1000 cc. of blood, the blood pressure was 95 systolic, 50 diastolic, and the pulse became strong and steady.

A urine specimen contained many red blood cells. The blood hemoglobin was 14.6 gm. A roentgenogram of the chest taken with a portable machine showed widening of the mediastinal shadow and a probable fracture of the first left rib. A roentgenogram of the spine showed a compression fracture of the body of the seventh dorsal vertebra. There was subluxation of the fourth lumbar vertebra on the fifth and probable fractures of their facets and laminas.

Later during the day of admission because of persistent tympany over the left upper quadrant, a Levine tube was passed. Approximately 300 cc. of air and 250 cc. of clear fluid with a few flecks of gross blood were removed, with considerable decrease in tympany. On the second hospital day, the abdomen was greatly distended, and the patient vomited small amounts of thick, coffee-ground material. He continued to complain of sharp pain radiating around the left side of the chest, accentuated on breathing. On physical examination at

this time the lungs were clear except for a few bronchial rales. The abdomen was tightly distended, with only occasional peristaltic sounds. A large gas bubble was again percussible in the left upper quadrant. The extremities were normal. Seven hundred cubic centimeters of coffee-ground fluid were aspirated by Levine tube. On the fourth hospital day the abdomen was soft, with normal peristalsis. There was slight tenderness in the right upper quadrant. On the same day the patient passed gas by rectum and took 60 cc. of fluid each hour by mouth, with no ill-effects. The blood hemoglobin was 10.9 gm. per 100 cc. and the white-cell count 15,700. The nonprotein nitrogen was 40 mg. per 100 cc. During the next nine days the patient showed marked improvement and was able to take soft solids by mouth. Repeated examinations during this time were negative for any unfavorable change in the patient's condition, and he complained of only slight discomfort on turning in bed. His convalescence seemed to be satisfactory in all respects. The chest pain had markedly diminished. The blood hemoglobin had been brought up to a level of 12.6 gm. per 100 cc. by a third transfusion. The urinary output was normal; the indwelling catheter was removed. Whereas initially the urinary sediment had contained 200 red blood cells per high-power field, only 2 per high-power field were present on the twelfth hospital day. Repeated neurologic and urologic examinations were negative. On the seventeenth hospital day after an unsuccessful attempt to use the bedpan, the patient was seized with severe pain in the left upper quadrant and left lower chest. The blood pressure fell to 95 systolic, 60 diastolic, and the pulse rose to 102 per minute. Shortly thereafter the patient began to perspire profusely. The pain gradually subsided. Examination of the heart and chest was negative. Over the abdomen there was a generalized deep tenderness, particularly on the left side. There were no palpable masses. Peristaltic sounds were present but much reduced. A Levine tube was passed, with essentially no return. During the next twelve hours the blood pressure was maintained at about 110 systolic, 70 diastolic. There was diffuse tenderness, with rebound tenderness over the entire abdomen. Peristalsis persisted but was of low pitch. An exploratory laparotomy was then performed.

Differential Diagnosis

Dr. Richard Warren*: May we see the x-ray films?

Dr. Stanley M. Wyman: All these films are somewhat poor because they were taken while the patient was on a Bradford frame. There are fractures of the bodies of several thoracic vertebras — namely the fourth and seventh thoracic — and possibly of several higher vertebras. The changes in the lumbar spine are not impressive. There is nothing else particularly diagnostic except for rather considerable atherosclerosis of the ascending aorta, which I think accounts for the wide mediastinal shadow described in the protocol.

Dr. Warren: Do the kidneys look normal?

Dr. Wyman: Yes.

Dr. Warren: Was no intravenous pyelogram done?

Dr. Wyman: I think it was done after the operation.

Dr. Warren: No chest plate was taken during the last episode?

Dr. Wyman: No.

Dr. Warren: I think we will all agree that this patient had a bad fall and that he sustained at that time "internal injuries," as is usually stated in the newspapers, which seventeen days later caused an acute abdominal emergency. As far as I am concerned this could have been caused by an injury to almost anything within the abdomen. I will attempt to analyze the problem by dividing the possible pathologic processes into four categories: rupture of a hollow viscus; rupture of an abscess forming in a large retroperitoneal hematoma, which might have been secondary to the injuries to the lumbar spine or to the obvious injury to the kidney as evidenced by the red cells in the urine; traumatic cyst of the pancreas, liver or cisterna chyli; and finally a recurrent hemorrhage from an injury to a parenchymatous organ like the spleen or kidney.

Certain bits of information that I would like to have about the last episode are not given in the record. Did the patient have any fever after the time of the first episode when he was apparently perfectly well, or during the last acute episode?

Dr. Charles B. Burbank: No; he had no significant fever at any time. The temperature was always about 99°F.

*Assistant surgeon, Massachusetts General Hospital.

DR. WARREN: In that last episode, after he went into shock, the blood pressure came back up and there was a twelve-hour wait before operation. Did he get a transfusion to make him respond at this time?

DR. BURBANK: Yes.

DR. WARREN: I think I will rule out rupture of a hollow viscus. He would have been much sicker, and there would not have been a wait of twelve hours before operation. Furthermore, it is very unusual for this to happen after a delay of seventeen days. With the absence of fever and the absence of signs of generalized peritonitis in the last episode, I can also rule out the intraperitoneal rupture of an abscess. I therefore think I can consider chiefly the differential diagnosis between recurrent hemorrhage from an injured viscus and rupture of a traumatic cyst. The rupture of a pancreatic cyst is a likely possibility. The one difficulty about it is that we know that he did not have any mass. He was apparently examined repeatedly during the days in which he was perfectly well, and unless the mass was well up under the ribs out of the reach of the examining hand, I believe that it would have been felt. It was not felt, and I think on that basis that rupture of a pancreatic cyst is unlikely. How about a chylous cyst, a traumatic cyst of the cisterna chyli? That is very rarely found and is so uncommon that I think it is to be ruled out.

What information do we have about the location of the injury that might give us a lead? Clues from this history are quite difficult to evaluate because in the initial episode shortly following trauma the tenderness, such as it was, was more on the right than on the left. With the final episode of definite severe pain in the left upper quadrant and chest, however, we must localize the injury in that region. That pretty well narrows things down to the spleen and left kidney. It is likely that this was a recurrent hemorrhage from one of these two organs. I do not know how to make a differential diagnosis between them. We know he had a kidney injury to begin with, but the absence of symptoms for nine days, the absence of a mass in the flank and the clearing of the urine make late rupture of a renal hematoma unlikely. I think in conclusion I will have to fall back on our much more familiar old friend, delayed rupture of the spleen.

CLINICAL DIAGNOSIS

Ruptured spleen.

DR. WARREN'S DIAGNOSIS

Delayed rupture of spleen.

ANATOMICAL DIAGNOSIS

Delayed rupture of spleen.

PATHOLOGICAL DISCUSSION

DR. BURBANK: Dr. Warren has gone through very much the same steps that we went through in taking care of this patient. We thought from the beginning that he might have a ruptured spleen. He obviously was in advanced shock on admission. Another x-ray finding that might have helped Dr. Warren was the transverse-process fracture, which was not obvious at first but was noted in subsequent films.

Because of the multiple injuries we thought it better not to operate upon the patient at the very beginning. We were aware that he might later bleed from the spleen, and when apparently a hemorrhage occurred, we thought that was the most probable source of bleeding and with that diagnosis we did operate on him. He had a large amount of blood in clots and a good deal of blood free within the abdomen. The spleen was enlarged to nearly twice the normal size and was easily removed, and no other source of hemorrhage was found.

DR. TRACY B. MALLORY: The spleen showed massive necrosis of a third of the organ, and numerous patches of hemorrhagic necrosis scattered throughout the rest of the organ, quite a characteristic picture of traumatic splenic injury.

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THE AMERICAN COLLEGE OF PHYSICIANS

The *Journal*, as one of New England's historic medical institutions, welcomes to Boston the American College of Physicians on the occasion of its thirty-first annual session. By a happy circumstance the leading article in this week's issue, describing the annual meeting of the American Medical Association in Boston in 1865, is by the president of the College, Dr. Reginald Fitz.

Dr. Fitz's paper, furthermore, is of particular interest to the members of the College, for it deals with the rise of internal medicine as a specialty. Important in this development is the part that the American College of Physicians played conjointly with the Section on the Practice of Medicine of the American Medical Association in establishing the American Board of Internal Medicine in 1936.

The meeting has been in preparation over a considerable period of time, and it can almost be guaranteed (so far as guarantees are consistent with the austere ethics of the profession) that an excellent program has been arranged. A felicitous interlude will be the Annual Convocation of the College on the evening of April 19, when Lord Moran, president of the Royal College of Physicians of London, will deliver the Convocational Oration. It is expected that the citizens of Massachusetts, better mannered in 1950, will make amends to this distinguished visitor for their rudeness of the same date a hundred and seventy-five years ago.

On the following evening, although not in rebuttal, President James Bryant Conant of Harvard University will deliver the address at the annual banquet of the College.

NATIONAL "HEALTH" INSURANCE

National health insurance is the term applied by its advocates to certain legislation now pending in Congress. This legislation, however, does not deal primarily with the maintenance of the public health, or with the prevention of disease on a national scale; it concerns the prepayment of medical care.

How much does adequate medical care have to do with the maintenance of the public health?

When the services of a doctor are required, it is because the maintenance of the public health, so far as the person calling for these services is concerned, has broken down. His wife's attack of appendicitis, his child's infantile paralysis, his own coronary occlusion or his father's cancer of the stomach might have been avoided, or they may at some future time (if the cancer campaign, the heart campaign, the poliomyelitis campaign and others pay off) be preventable; nevertheless, whenever one of these crises does occur, it is time to call not the Public Health Service but the physician or surgeon.

Although practicing physicians all try to include in their care of the public the newest preventive procedures offered by the investigative branch of the profession, and although they talk a great deal about preventive medicine, the fact remains that the great bulk of their work is to visit the sick, care

for the suffering and comfort the dying. No one will deny that they bring relief and comfort, or that often enough they are even able to restore health. But to insure health they are unable.

As citizens, physicians still have no acute problem in the cost of medical care. They usually pay no doctors' bills, thanks to professional courtesy, and even hospitals are inclined to deal kindly with them when they need hospital services. But are they and their families thereby healthier than others? Do they have fewer bellyaches or ruptured intervertebral disks and less coronary disease, or are they better protected against poliomyelitis or pernicious anemia than their lay brethren? They should be, if there were anything to this cry that cheaper and more available medical care brings better national health. But the actual answer is *no*.

Sensible progress in attaining better national health was made when yellow fever and malaria all but disappeared with the mosquitoes that bore them and when typhoid fever was practically eradicated by adequate sewage disposal, and it will be made in the future when the ill understood conditions that make rheumatic fever a disease of the poorly fed and poorly housed, or coronary-artery disease an affliction of the well fed and well housed, are studied, attacked and modified.

Doctors no less than others are willing to pay fair taxes to bring about better health. But it seems to them that to spend money in sums so vast that they threaten the national economy on mere stopgap methods such as providing cheaper medical care is neither necessary nor wise. It is fine to be able to supply hospital beds, intravenous feedings, x-ray examinations and craniotomies for the victims of automobile accidents, but it would be even finer to be able to prevent a substantial number of the accidents. It is by means of preventive medicine — not by free medical care — that efforts to attain better national health are most apt to succeed.

PRESENT STATUS OF THE ANTIHISTAMINIC DRUGS IN THE COMMON COLD

In response to many requests for a considered opinion concerning the validity of the extraordinary claims made by the aggressive promoters of the antihistaminic drugs, which were released by the Food and Drug Administration for over-the-counter sale, the Council on Pharmacy and Chemistry of the American Medical Association has published a critical review of the status of the agents in the prophylaxis and treatment of the common cold.[1] In this review the Council analyzed the details of the published reports for the accuracy of the diagnosis of the common cold, the adequacy of the controls used in assessing the results and the statistical significance of the reported results.

The reports analyzed included 2357 patients with the common cold, more than half of them studied by a single observer. From these reports the Council concluded that the diagnostic methods employed did not conclusively demonstrate that the condition treated was actually the common cold. Over half the cases were investigated in studies with inadequate controls or without controls, and the interpretations of the results obtained are open to question. The results of the only published prophylactic study are considered to be suggestive in that the figures as recorded are statistically significant, but these results require confirmation because the series is small and the findings are contrary to the experience of allergists.

The Council pointed out many flaws in the experimental design of these investigations that introduce serious doubts of the validity of the results. Furthermore, the side effects from the antihistaminic drugs that have been encountered by all observers are quite significant in frequency and may be quite serious under certain circumstances or in some cases. These have not been adequately emphasized in the reports, and they have been either minimized, almost completely ignored or denied by the lay promoters in their advertising campaigns.

The evidence so far presented, in the considered opinion of the Council, should be properly classified as the honest opinion of the investigators but not as fact. The Council concedes that the antihistaminic agents apparently produce considerable subjective relief owing to inhibition of nasal discharge, but it states that similar results may be obtained by the use of ephedrine or atropine.

The Council also took this opportunity to make certain suggestions for studies that would lead

to the solution of the fundamental problems of the pathogenesis of the common cold and would resolve the controversial claims concerning the effectiveness of the antihistaminic drugs in its prevention and treatment. For example, further work is indicated to delineate clearly the influence of histamine in the pathogenesis of the common cold, since some of its early symptoms have been reproduced by spraying of a dilute histamine solution on the nasal mucous membrane. This is obviously a reasonable and pertinent suggestion.

The Council, however, goes on to suggest an outline of an investigation to obtain more conclusive clinical data for evaluating the antihistaminic agents. For this purpose they propose that a supply of an "unquestionable causative agent of the common cold" be obtained by a technic similar to that used by the workers of the National Institutes of Health in isolating their common-cold virus. "A large group of normal volunteers in whom allergy has been eliminated" should then be divided into suitable treated and control groups for prophylactic and curative studies with various dosages and time schedules. Further details are suggested, and the Council report concludes by stating that "until a scientifically acceptable study is performed, the true effectiveness of the antihistaminic drugs in the control of the common cold cannot be evaluated."

Although it is difficult to take exception to this concluding statement, it seems equally obvious that the type of study proposed by the Council is far from realistic. Several groups of workers like those at the National Institutes of Health and the Commission on Acute Respiratory Diseases in this country and at the Harvard-Red Cross Hospital in England have made extensive and elaborate efforts to obtain a solution of the simple problem of the isolation, identification and maintenance of viruses from patients with the common cold and other simple respiratory infections. An analysis of the details involved in carrying out these studies would almost be enough to discourage any undertaking of the type suggested by the Council. Furthermore, it is doubtful whether any medical research unit now in operation, including the ones just mentioned, has or could obtain the facilities and funds required to carry to a logical conclusion the investigation suggested by the Council.

It might be suggested, of course, that the chief source of support for such a huge and expensive project might be derived from the enormous profits being realized from the tremendous sales of these antihistaminics.[2] It is hardly to be expected, however, that those who are exploiting these drugs for personal profit have sufficient interest in the truth of their claims or in the welfare of their customers to stake a sizable share of their income in an attempt to arrive at a truth that might possibly disprove these claims and would remove much of the source of these newly acquired profits. And even if the funds were made available, it may be seriously doubted if such an investigation could be carried out successfully in the present state of knowledge of the viruses of the common cold and of the technics required for controlling the studies with such agents.

A more realistic approach to the immediate problem of the evaluation of the claims concerning the efficacy of the antihistaminic agents against the common cold must take into account the difficulties in diagnosis and utilize the best available clinical criteria. Perhaps it might be more reasonable to suggest a large-scale and carefully controlled study such as that conducted by the Medical Research Council of Great Britain following the flurry of excitement caused by the claims concerning the effectiveness of the antibiotic "patulin" in the common cold.[3] This large-scale study might be supplemented by a number of small and carefully controlled studies on the role of allergy and histamine in various upper-respiratory-tract syndromes and their possible relation to the common cold. Meanwhile, many studies under way have been planned by different groups of workers from various points of view. The results of these studies are awaited with considerable interest, for, although they may not come up with conclusive answers to the immediate problem or satisfy the rigid criteria of the Council, they may help to evaluate or delineate the role of the antihistaminic drugs in various affections of the upper respiratory tract.

References

1. Council on Pharmacy and Chemistry, American Medical Association. Status report on antihistaminic agents in prophylaxis and treatment of common "cold." *J. A. M. A.* **142**:566-569, 1950.
2. Editorial. Antihistaminics for colds. *J. A. M. A.* **142**:570, 1950.
3. Editorial. Patulin ineffective against common cold. *New Eng. J. Med.* **232**:515, 1945.

PILLS FOR PEGASUS

THE Office of the Surgeon General of the United States Air Force has recently announced the loan to the Colombian Government, under the auspices of the Pan American Sanitary Bureau, of a former chief of the Air Force Veterinary Service, to study the Colombian milk industry and offer recommendations.

The existence of a veterinary service in such a highly mechanized branch as the Air Force need occasion no surprise. A Force with such a huge personnel may very logically possess its own farms, its flocks and its herds, and even its horses, all presumably earth-bound except under unusual circumstances. It is hoped that the larger animals will remain so.

Liebig, the great chemist, was so dull in college that he was called the "booby" of his class. "Bright" students don't always make the most brilliant men.

Boston M. & S. J., *April 10, 1850*

The *Journal* lacks extra copies of the January 12 and February 2, 1950, issues. If any subscribers who do not bind their copies have the above-mentioned issues on hand, the *Journal* will pay 15 cents for each copy left at or mailed to its office (8 Fenway, Boston 15).

MASSACHUSETTS MEDICAL SOCIETY

DEATHS

NORRIS — Albert P. Norris, M.D., of Cambridge, died on March 29. He was in his seventy-sixth year.

Dr. Norris received his degree from Harvard Medical School in 1903. He was formerly milk inspector for the city of Cambridge and was a fellow of the American Medical Association.

His widow, two sons, a daughter and a sister survive.

SIMPSON — Charles Moffett Simpson, of Temple, Texas, died on March 29. He was in his fifty-fifth year.

Dr. Simpson received his degree from Harvard Medical School in 1919.

Two daughters survive.

BOSTON MEDICAL LIBRARY

REPORT OF THE PRESIDENT

I am happy to submit my fourth annual report as president of the Boston Medical Library. The Library, I am pleased to say, still continues to make progress toward its ultimate goal as a central research and reference library. This year has been devoted to cleaning house and clearing up. Many duplicate books have been sold, and many more removed to the Deposit Library. Indeed, the Librarian tells me that all our space there is now occupied. This is a costly business — $2000 a year — but necessary until our stacks are completed; $2000 a year represents the income of about $50,000. If someone would make a donation of $50,000, we could complete at least three tiers of stacks and give up the space in the Deposit Library and save $2000 a year.

I do not know how many fellows of the Library appreciate the necessity of more stack room. At the risk of tiresome repetition let me say that the stack building was built in 1930 of substantial construction to contain seven sets of stacks. The main floor was given over to the *New England Journal of Medicine* for its offices, and two stacks only were constructed above this. An open elevator well was constructed, but no elevator installed. The two completed tiers were soon filled, and temporary scaffolding was erected, on which boxes upon boxes of books have been stacked upward and upward; to reach them requires the agility and sure-footedness of a Rocky Mountain goat.

It can be readily understood without the necessity of seeing this wilderness that the arrangement does not work for efficiency. Furthermore, it is very wasteful of space. These compact tiers of stacks would more than accommodate the books now in temporary quarters as well as those now at the Deposit Library. Somehow, money must soon be found to complete at least three of these stacks and the elevator or we shall not be able to store the books and periodicals that are continually coming in. The Librarian reports that we are receiving many foreign periodicals long delayed because of the war.

Some repairs have been made, particularly to the roof, which now seems to be in good condition. Some painting has been done, especially in the kitchen. It is planned to cut down the height of the inner front doors so that they will not be so heavy to open. We should like to substitute glass doors, but the cost is too great.

How much more we can do in alterations and repairs in the next year depends somewhat on what the Massachusetts Medical Society decides to do about its plans for the future. If the Society plans to stay here and reconstruct our first floor it would be foolish of us to spend any more money in painting until the construction is finished.

Thanks to the Massachusetts Medical Society we can still balance our books. We have repaid more of our indebtedness to the restricted funds, thereby reducing that liability considerably. Our budget for next year will be larger, owing principally to an automatic increase of salaries of about $4000.

Sometimes we hear the question, What has the Library done for the Massachusetts Medical Society in return for its generous support? It is difficult perhaps to answer this in actual facts, item by item, but a general picture is not difficult to produce.

In the first place, it has made more readily accessible many more books and periodicals. In the second place, it has made these available to any member anywhere in the State. There has been some criticism of the method of delivery of these books and the cost of such service. The Library has always used express service, for several good reasons. The express company collects the books or periodicals at our door, and we may be reasonably sure of their safe delivery. On the other hand, parcel post is cheaper in cash but more costly in time, since someone has to take the material to the post office and stand in line to get it registered or insured, and safety of delivery is not so sure. However, this matter has been discussed by the trustees, and we hope in some way to lessen the cost of the delivery system.

That the Library has given more and better service is proved by the figures. In the two years since all the members of the Massachusetts Medical Society became members of the Library, the circulation of books and periodicals has grown from 40,000 volumes to 60,000, an increase of about a third. This has largely been in books sent out on request. The actual attendance in the Library has not increased so dramatically, but there is a substantial gain of 2000 — from 10,000 to 12,000. This, of course, represents only visitors who requested books from our shelves. In addition, the periodical room has been used very much more than ever before, but unfortunately we have no way of measuring this. The Library has also been used increasingly, both by the *Journal* and by its contributors.

Of course all this gain cannot be said to be due to use by the Massachusetts Medical Society members alone, but I think it is fair to say that a considerable amount of the gain is due to the increased membership. We shall continue to improve our service in every way we can because we know we can have the loyal support of the members of the Massachusetts Medical Society, who recognize the fact that a good library is very necessary if the members are to keep up with the progress of scientific medicine. It is quite clear, I think, that without the added support of the Society we cannot maintain the Library. We must not let this superb collection of medical books and periodicals, one of the largest and most complete in the country, deteriorate or lose its usefulness to our profession.

I wish to express my admiration and that of the trustees for the remarkable work accomplished by our librarian, Dr. Viets, in the face of great obstacles. His skill and judgment in buying books for our rare-book collection is outstanding. We celebrate our seventy-fifth anniversary this fall, and much of the program for this anticipated event is in Dr. Viets's capable hands. The trustees consider this an opportune time to bring up to date Dr. Farlow's excellent history of the Library. This enterprise has also been entrusted to Dr. Viets.

The trustees again express their thanks to Mr. Ballard and his able corps of faithful workers, who accomplish so much in the face of difficulties and dust.

Again, I urge cordial support of the Boston Medical Library both in word and in deed, that its fame and usefulness may continue to spread and multiply.

WALTER G. PHIPPEN

BOOK RECEIVED

The receipt of the following book is acknowledged, and this listing must be regarded as a sufficient return for the courtesy of the sender. Books that appear to be of particular interest will be reviewed as space permits. Additional information in regard to all listed books will be gladly furnished on request.

Textbook of Bacteriology (*Eleventh edition of Muir & Ritchie's "Manual"*). By C. H. Browning, M.D., LL.D., D.P.H. F.R.S., Gardiner Professor of Bacteriology, University of Glasgow; and T. J. Mackie, C.B.E., M.D., LL.D., D.P.H., professor of bacteriology, University of Edinburgh. 8°, cloth, 907 pp., with 226 illustrations. New York: Oxford University Press, 1949. $12.75. Oxford Medical Publications.

Muir and Ritchie's Manual was published first in 1897 and has withstood the test of fifty-one years. The new authors have continued the work in an enlarged, attractive format. The type has been reset, and the text brought up to date. A long appendix is devoted to laboratory methods. Fungi and protozoa have been included, because of their great similarity to the bacteria. The material on the viruses has been greatly expanded. The chapter on the pathogenic fungi was written by R. Cranston Low. There is a large bibliography of fifty-four pages arranged by topics. The printing was done in Great Britain. The book should find a place in the reference collections on the subject, particularly in medical libraries.

NOTICES

SOUTH END MEDICAL CLUB

A luncheon meeting of the South End Medical Club will be held at the headquarters of the Boston Tuberculosis Association, 554 Columbus Avenue, Boston, on Tuesday, April 18, at 12 noon.

Dr. Roger C. Graves, urologist-in-chief, Carney Hospital, urologist on the staff of the New England Deaconess Hospital and consulting urologist to Pondville Hospital, will speak on the subject "Tumors of the Genitourinary Tract." The lecture will be illustrated with lantern slides.

All physicians are cordially invited to attend.

MIDDLESEX SOUTH DISTRICT MEDICAL SOCIETY

The annual meeting of the Middlesex South District Medical Society will be held at the Hotel Continental, Cambridge, on Wednesday, April 26, at 11:30 a.m. The annual oration, entitled "Modern Surgery," will be delivered by Dr. Edward Churchill, chief of the General Surgical Service, Massachusetts General Hospital, and John Homans Professor of Surgery, Harvard Medical School.

SUFFOLK DISTRICT MEDICAL SOCIETY

The spring dinner of the Suffolk District Medical Society will be held at the Harvard Club of Boston on Saturday, May 6, at 6:30 p.m. Carl J. Friedrich, professor of government, Harvard University, will speak on the subject "The Present Political Situation in Germany and Europe."

Members of the Massachusetts Medical Society and their guests are cordially invited.

The annual meeting will be held in Sprague Hall, Boston Medical Library, 8 Fenway, Boston, on Wednesday, May 10, at 5:00 p.m.

HAMPDEN DISTRICT MEDICAL SOCIETY

The annual meeting of the Hampden District Medical Society for the election of officers will be held at the Roger Smith Hotel, Holyoke, on Tuesday, April 25, at 6 p.m.

AMERICAN NEUROLOGICAL ASSOCIATION

The annual meeting of the American Neurological Association will be held in Atlantic City, New Jersey, on June 12-14, with headquarters at the Claridge Hotel.

MEETINGS AT TEXAS MEDICAL CENTER

The following meetings of interest to scientists and physicians will be held at the Texas Medical Center, Houston, Texas, on May 12 and 13, with Dr. A. C. Broders, of the Mayo Clinic, Dr. Marshall Brucer, of the Oak Ridge Institute of Nuclear Studies, and Dr. C. P. Rhoads of the Memorial Hospital, New York City, as featured speakers:

Fourth annual Symposium on Fundamental Cancer Research, of The University of Texas, M. D. Anderson Hospital for Cancer Research, during which half a day will be devoted to selected papers on the subject of isotopes in cancer research.

Cancer Pathology Conference of The University of Texas Postgraduate School of Medicine, on the subject "Tumors of Muscle Origin."

South-Central Regional Meeting of the College of American Pathologists, with co-participation in the symposium and pathology conference.

Dr. C. P. Rhoads will be the speaker at the banquet on the evening of May 12. Further information may be obtained from William O. Russell, M.D., 2310 Baldwin Street, Houston, Texas.

SOCIETY MEETINGS AND CONFERENCES

October 3–May 19. Massachusetts Department of Mental Health. Postgraduate Seminar in Neurology and Psychiatry. Page 286, issue of August 18.

January 9–December 1. Laboratory Courses at Communicable Disease Center, Atlanta, Georgia. Page 950, issue of December 8.

April 15. Springfield Hospital. Page 488, issue of March 23.

April 17. Boston Lying-in Hospital Obstetric Round Table. Page 888, issue of December 1.

April 17. Hartford Medical Society. Page 386, issue of March 9.

April 17. Boston Chapter of American Federation for Clinical Research. Page 567, issue of April 6.

April 17–21. American College of Physicians. Page 568, issue of April 6.

April 18. Springfield Hospital. Page 488, issue of March 23.

April 18. South End Medical Club. Page 599.

April 19. Tufts Medical Alumni Association. Page 488, issue of March 23.

April 19. New England Society of Physical Medicine and Rhode Island Chapter, American Physical Therapy Association. Page 568, issue of April 6.

April 20. Berkshire District Medical Society. Annual Meeting. Williams Inn, Williamstown. 7:00 p.m.

April 21. National Rehabilitation Association. Page 488, issue of March 23.

April 21. Sixtieth Anniversary of Clark University. Page 428, issue of March 16.

April 22–29. American Association of Industrial Physicians and Surgeons. Page 305, issue of February 23.

April 23–26. Iowa State Medical Society Centennial. Notice above.

April 24. Cutter Lecture. Page 567, issue of April 6.

April 24–28. National Tuberculosis Association. Page 678, issue of October 27.

April 25. Massachusetts Public Health Association. Page 568, issue of April 6.

April 25. Hampden District Medical Society. Notice above.

April 25–28. Philadelphia County Medical Society. Page 386, issue of March 9.

April 26. New England Obstetrical and Gynecological Society, Rhode Island Hospital and Providence Lying-in Hospital, Providence, Rhode Island.

April 26. Middlesex South District Medical Society. Notice above.

April 27. 94th Infantry Division Lecture. Page 528, issue of March 30.

April 29. Eastern Section of American Congress of Physical Medicine. Page 306, issue of February 23.

April 29. Long Island College of Medicine Alumni Day. Page 348, issue of March 2.

May 3. Norfolk District Medical Society Anniversary Dinner.

May 3–7. Second European Congress of National Associations of Gastroenterology. Page 428, issue of March 16.

May 4. Suffolk District Censors' Meeting. Page 234, issue of February 9.

May 6. Suffolk District Medical Society. Notice above.

May 8. New England Cardiovascular Society. Annual Meeting.

May 10. Massachusetts Society of Examining Physicians. Page 528, issue of March 30.

May 10. Massachusetts Chapter of American Academy of General Practice. Page 528, issue of March 30.

May 10. Suffolk District Medical Society. Notice above.

May 11. The Problems of Infertility. Dr. David Weintraub. Pentucket Association of Physicians. 8:30 p.m. Haverhill.

May 12 and 13. Meetings at Texas Medical Center. Notice above.

May 14–19. International and Fourth American Congress of Obstetrics and Gynecology. Page 160, issue of January 26.

(Notices concluded on page xix)

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10

NOTICES (*Concluded from page 600*)

MAY 16–18. Massachusetts Medical Society. Annual Meeting. Hotel Statler, Boston.

MAY 17. Luncheon Meeting. Section on Diseases of the Eye, Ear, Nose and Throat, Massachusetts Medical Society. Hotel Statler, Boston. 12:00 m.

MAY 22 AND 23. National Research Council Committee on Human Reproduction. Page 488, issue of March 23.

MAY 24–26. American Association of Genito-Urinary Surgeons. Page 234, issue of February 9.

JUNE 12–14. American Neurological Association. Page 600.

JUNE 22–25. American College of Chest Physicians. Page 270, issue of February 16.

JUNE 24 AND 25. American Society for the Study of Sterility. Page 38, issue of January 5.

JUNE 26–30. American Physicians Art Association. Page 428, issue of March 16.

JUNE 26–30. American Medical Association. Annual Session. San Francisco, California.

JULY 17–22. International Congress for Scientific Research. Page xvii, issue of September 1.

AUGUST 21–26. International Society of Hematology. Page 888, issue of December 1.

AUGUST 28–SEPTEMBER 1. American Congress of Physical Medicine. Page 428, issue of March 16.

AUGUST 31–SEPTEMBER 7. World Federation for Mental Health. Page 306, issue of February 23.

SEPTEMBER 3–9. International Heart Congress. Page 160, issue of January 26.

SEPTEMBER 27–29. Mississippi Valley Medical Society. Page 991, issue of December 15.

OCTOBER 12–14. American Association of Blood Banks. Page 428, issue of March 16.

NOVEMBER 1. New England Obstetrical and Gynecological Society. Hotel Somerset, Boston.

DISTRICT MEDICAL SOCIETIES

BERKSHIRE

APRIL 20. Annual Meeting.

HAMPDEN

APRIL 25. Annual Meeting.

MIDDLESEX SOUTH

APRIL 26. Annual Meeting.

NORFOLK

MAY 3. Anniversary Dinner.

SUFFOLK

MAY 4. Censors' Meeting.
MAY 6. Spring Dinner.
MAY 10. Annual Meeting.

CALENDAR OF BOSTON DISTRICT FOR THE WEEK BEGINNING THURSDAY, APRIL 20

FRIDAY, APRIL 21

*9:00 a.m.–12:00 m. Combined Medical and Surgical Staff Rounds. Peter Bent Brigham Hospital.

*1:30 p.m. Tumor Clinic. Out-Patient Department, Mount Auburn Hospital, Cambridge.

MONDAY, APRIL 24

*11:30 a.m.–12:15 p.m. Chest X-Ray Conference. South End Health Unit, 57 East Concord Street, Boston. Dr. Cleaveland Floyd in charge.

*12:15–1:15 p.m. Clinicopathological Conference. Main Amphitheater, Peter Bent Brigham Hospital.

5:15 p.m. Staff Meeting. Harris Hall, New England Deaconess Hospital.

TUESDAY, APRIL 25

*12:15–1:15 p.m. Clinicoroentgenological Conference. Peter Bent Brigham Hospital.

*1:30–2:30 p.m. Pediatric Rounds. Burnham Memorial Hospital for Children, Massachusetts General Hospital.

WEDNESDAY, APRIL 26

*11:00 a.m.–12:00 m. Medical Rounds. Children's Medical Center.

11:30 a.m. Annual Meeting. Middlesex South District Medical Society. Hotel Continental, Cambridge.

*12:00 m. Clinical Conference. Margaret Jewett Hall, Mount Auburn Hospital, Cambridge.

*12:00 m.–1:00 p.m. Clinicopathological Conference (Children's Medical Center). Amphitheater, Peter Bent Brigham Hospital.

*2:00–3:00 p.m. Combined Clinic of all Medical Center Services. Amphitheater, Children's Hospital.

*Open to the medical profession.

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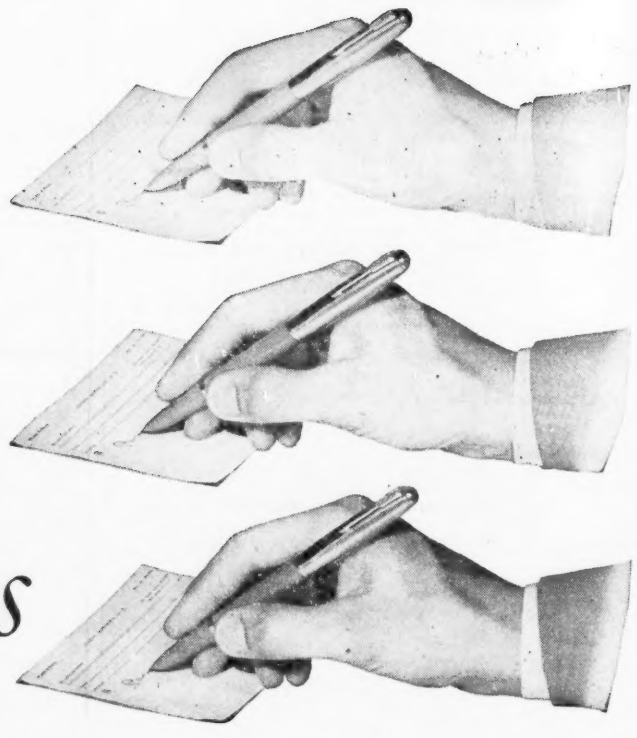

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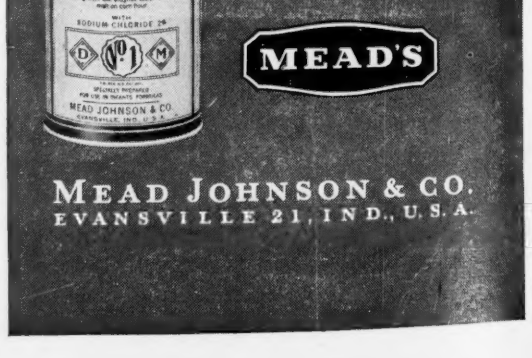

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